149 U S 784

RECORD, CASE No. 13,739.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1892.

TERM No., 155.

W. J. RAINEY, APPELLANT,

vs.

SAMUEL S. BROWN AND HARRY BROWN, PARTNERS UNDER THE FIRM NAME OF W. H. BROWN SONS, AND JAMES COCHRAN.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF PENNSYLVANIA.

FILED OCTOBER 12, 1889.

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Among the rolls, records, and judicial proceedings had in the circuit court of the United States in and for the western district of Pennsylvania, wherein Samual S. Brown *et al.* are complainants and John H. Shoenberger *et al.* are defendants, entered at No. 18, November term, 1887, may be found the following words and figures, viz:

Equity Docket Entries.

SAMUEL S. BROWN and HARRY BROWN, Partners under the Firm Name of W. H. Brown Sons, and JAMES COCHRAN, Citizens of the Commonwealth of Pennsylvania,

vs.

JOHN H. SHOENBERGER, a Citizen of the State of New York, and GEORGE K. SHOENBERGER, a Citizen of the State of Ohio.

H. & G. C. Burgwin.

Bill filed September 20, 1887. Same day subpœna issued, returnable first Monday of October next.

1887, October 3.—Subpœna served on defendants by George Shiras, Jr., their attorney, accepting service thereof. Mar., $5.00.

1887, November 19.—This cause came on to be heard upon bill and order that the same be taken *pro confesso* against the defendants in default of an appearance and answer, upon a motion for a decree for partition, and upon consideration of the matter contained in the bill and with the consent of defendants' counsel, the
2 court do order, adjudge, and decree that compl'ts are together entitled to the undivided one-half of the lands described in the bill, and that the defendants are together entitled to the remaining one-half thereof; that a fair and just division and partition of said premises be made between the parties entitled thereto according to law; that Cicero Hasbrouck be appointed master to make such division and partition, provided the same can be done without prejudice to or spoiling the whole, subject to the approval of the court, and if such partition cannot be so made, then to divide the same into as many purparts as in his opinion will be to the best advantage, and thereupon to make a fair and just appraisement of the several purparts and report said division and appraisement to the court for its further order, filed.

1888, October 11.—Master's report, together with testimony and exhibits offered before him, filed. Same day exceptions of behalf of defendants filed before the master, filed; also master's report filed.

1888, Dec. 12.—Argument had upon exceptions to master's report. *C. A. V.*

1888, Dec. 29.—Opinion of the court on exceptions to master's report, directing a decree to be drawn in conformity with said report and fixing master's fee at $500, filed.

1889, January 29.—The following paper filed:

"Whereas, pending the proceedings in the above-entitled cause, the said George K. Shoenberger and John H. Shoenberger, by deed bearing date the 20th day of April, 1887, duly recorded in the office of the recorder of deeds in and for the county of Fayette, in Deed Book, vol. 78, page 12, did grant and convey unto Wm. J. Rainey, a citizen
3 of the State of Ohio, all the right, title, interest, claim, and demand of them, the said George K. Shoenberger and John H. Shoenberger, of, in, to, and out of the lands and tenements described in the bill of complaint, together with all the estate, in law or equity, howsoever, of them, the said George K. Shoenberger and John H. Shoenberger, in the said described lands and tenements, the hereditaments and appurtenances, and said estate, right, title, and interest is now vested in the said William J. Rainey; but the said plaintiffs have hitherto *have* had no notice of said conveyance except the recording thereof: It is now agreed that this stipulation shall have the full force and effect of said bill, and that a decree may be made hereon as above set forth.

(S'g'd) GEORGE SHIRAS, JR., AND
C. C. DICKEY,
Counsel for Defendants, and
WM. J. RAINEY.

Jan. 29, 1889."

"And now, to wit, Jan'y 29, 1889, it appearing to the court that John H. and George K. Shoenberger have, *pendente lite*, conveyed their interests in the lands and tenements which are the subject of partition to Wm. J. Rainey, a citizen of the State of Ohio, the filing of supplemental bill having been waived, it — considered, adjudged, and decreed (by agreement of counsel filed) that said William J. Rainey be made a party defendant to this cause.

"BY THE COURT."

The following decree is entered and filed:

"And now, to wit, January 29, 1889, this cause came on to be heard on motion of plaintiffs' counsel for a final decree upon the return of the master in partition made and agreement of counsel in the nature of a supplemental bill filed and order of court thereon making William J. Rainey a party defendant, and thereupon the said re-
4 turn is confirmed absolutely and it is ordered, adjudged, and decreed that the partition as made by the master remain firm and stable forever. And the plaintiffs, Samuel Brown and Harry Brown, partners doing business under the firm name of W. H. Brown Sons, and James Cochran, hold and own purpart "A," containing 136 acres 97 perches of land, in which there is 86.3 acres of coal known as the Parkhill coal and 12.6 acres of surface land, to them, their heirs and assigns in severalty, as to the said George K. Shoenberger and John H. Shoenberger and William J. Rainey, but as between themselves as tenants in common in the following purparts: To them, the said Samuel S. Brown and Harry Brown, partners doing business under the firm name of W. H. Brown Sons, to be

held and owned by them as partnership assets of said firm of W. H. Brown Sons, the one equal undivided one-half part or share of said purpart "A," and to the said James Cochran, his heirs and assigns, the one equal undivided one-half part or share of said purpart; to have and to hold the said purpart "A," with the appurtenances, by the same title and subject to the same conditions as the said coal and land in said purpart "A," as heretofore held in common by all the parties, plaintiffs and defendants, prior to this partition, subject, nevertheless, to the right in said William J. Rainey, his heirs and assigns, being the owners of the coal and surface included in purpart "B," to discharge the water which may hereafter be pumped from the mines hereafter to be opened in the tract of land known as the Hogsett & Wilson coal, included in said purpart "B," into the two water-courses shown on the map in partition filed in this case across the said surface land included in purpart "A" into Dickerson's run, and that the said William J. Rainey hold and own
4½ purpart "B," containing 145.31 acres of coal known as the Hogsett & Wilson coal and 24.31 acres of surface land, to him, his heirs and assigns forever, in severalty, together with the right in said William J. Rainey and to his heirs and assigns, being the owners of said purpart "B" coal and surface land, to discharge the water which may hereafter be pumped from the mines hereafter to be opened on the tract of land known as the Hogsett & Wilson coal included in purpart "B" into the two water-courses shown on the map in partition filed in this case across the said surface into Dickerson's run, subject to the payment by said William J. Rainey, his heirs or assigns, to the said W. H. Brown Sons and to James Cochran the sum of eight thousand six hundred seventy-two ($8,672) dollars as owelty in partition.

"And the said Samuel S. Brown, with Lizzie P., his wife, and Harry Brown, partners under the firm name of W. H. Brown Sons, and James Cochran, and —— ——, his wife, are ordered and directed to execute and deliver, within sixty days from the date hereof to the said William J. Rainey a deed of quitclaim and release for the coal and surface land comprised in purpart "B" aforesaid; and that the said William J. Rainey, with —— ——, his wife, is ordered and directed to execute and deliver, within sixty days from the date hereof, to the said Samuel S. Brown and Harry Brown, partners doing business under the firm name of W. H. Brown Sons, and James Cochran, a deed of quitclaim and release for the coal and surface land contained in purpart "A" aforesaid, and at the same time to pay to said W. H. Brown Sons and James Cochran the sum of eight thousand six hundred seventy-two ($8,672) dollars;

5 "And that the costs in this case, including a master's fee of five hundred dollars ($500), be paid, one-half thereof by the plaintiffs and one-half thereof by the defendants.

"By the COURT."

1889, Feb'y 26.—Petition of W. J. Rainey praying for an appeal to the U. S. Supreme Court from the above decree, presented and appeal allowed and amount of bond fixed at the sum of $20,000, filed.

1889, March 21.—Bond on above appeal of W. J. Rainey, with Alexander J. Hill, of Fayette Co., Pa., as surety, in the sum of $20,000, presented and approved *nisi*, to become absolute unless exceptions be filed within one week. Bond filed.

1889, March 26.—Receipt of master to plaintiff- for $250, being their one-half of his fee, filed.

1889, April 3.—Citation on appeal of W. J. Rainey, returnable in the U. S. Supreme Court on the second Monday of October next, signed by Honorable M. W. Acheson, J.

1889, April 3.—No exceptions having been filed to bond on appeal, the approval *nisi* is made absolute.—H. D. Gamble, clerk.

1889, April 10.—Citation served on H. & G. C. Burgwin, Esqs., for appellees.

Bill in Equity for Pe-tition.

In the Circuit Court of the United States for the Western District of Pennsylvania. In Equity. No. —. November Term, 1887.

6 To the honorable the judges of said court:

Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, and James Cochran, citizens of the Commonwealth of Pennsylvania and residing within the jurisdiction of this honorable court, bring this their bill against John H. Shoenberger, a citizen of the State of New York and residing in the city of New York, and George K. Shoenberger, a citizen of the State of Ohio and residing in the city of Cincinnati;

And thereupon your orators complain and say:

1st. That your orators have acquired by purchase and are the owners, as tenants in common with the defendants, of several tracts of surface and coal land, with the appurtenances, containing in the aggregate about 37 acres 29.5 perches of surface and 278 acres 13.5 perches of coal, all of which is situated in the township of Dunbar, in the county of Fayette, in said Commonwealth of Pennsylvania, and within the jurisdiction of this honorable court. A correct description of said tracts of coal and surface land is hereto annexed and marked Exhibit A, and your orators pray that the same may be taken as part of this bill.

2nd. That your orators Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, hold and own, not as tenants in common but as partners, by virtue of a deed to them from James Cochran and wife, dated the 21st day of January, 1885, and recorded in the recorder's office of said Fayette county,
7 in Deed Book, volume 62, page 355, the one undivided fourth part thereof.

That your orator James Cochran, by virtue of a deed from Solomon Keister and wife, dated the 26th day of April, 1883, recorded in said recorder's office in Deed Book, volume 54, page 24, and the

deeds therein recited and referred to, holds and owns the one undivided fourth part thereof.

That the defendants, by virtue of the two following-recited deeds, viz:

1st. Deed from Isaac Cochran *et ux. et al.*, dated March 25, 1871, recorded in said recorder's office in Deed Book, volume 24, page 322;

2nd. Deed from Robert Hogsett *et ux. et al.*, dated November 11, 1871, and recorded in said recorder's office in Deed Book, volume 24, page 324—hold and own the one undivided fourth part thereof.

3rd. And your orators further represent that they have frequently applied unto and requested the said defendants to join and concur with your orators in making a fair, just, and equal partition of said premises between them, in order that their respective shares and proportions thereof might be allotted, held, and enjoyed in severalty; but so to do the defendants have wholly failed.

Your orators therefore pray:

First. That the parts and shares belonging to your orators and all other parties hereinabove named of, in, and to the real estate aforesaid may be ascertained.

Second. That a fair and just division may be made of all such estate between your orators and all other persons who shall
8 appear to be interested therein, and that the particulars thereof may be henceforth held and enjoyed by them, their heirs and assigns, in common as between themselves, and in severalty as between them and the other parties in interest, and that the same may be conveyed to them, their heirs and assigns forever, free from incumbrance, and that all proper parties may join in such conveyance, and that possession of such particulars may be delivered to your orators.

Third. And for this purpose that a commission may issue to a certain master or a certain master and commissioners, to be therein named, to make such partition of said real estate.

Fourth. And for other and further relief as justice and equity may require and to your honors shall seem meet.

And may it please your honors to grant unto your orators a writ of subpœna of the United States of America, issuing out of and under the seal of this honorable court, directed to the said George K. Shoenberger and John H. Shoenberger, defendants, commanding them, on a certain day therein to be named and under a certain penalty, to be and appear in this honorable court, then and there to answer all and singular the premises, and to stand to and abide such further order, direction, and decree as may be made against them.

And your orators, as in duty bound, will ever pray, &c.

SAM'L S. BROWN,
For W. H. Brown Sons.
JAMES COCHRAN.

H. & G. C. BURGWIN,
Solicitors for Complainants.

STATE OF PENNSYLVANIA, } ss:
Allegheny County, }

Before me, a notary public in and for said county, came the above-named Samuel S. Brown and James Cochran, of the plaintiffs in the above case, who, being by me first duly sworn, says that the facts set forth in the foregoing bill as of their own knowledge are true and those not of their own knowledge they believe to be true.

SAM'L S. BROWN.
JAMES COCHRAN.

Sworn and subscribed before me this 19th day of Sept., 1887.

A. P. BURGWIN,
[L. S.] *Notary Public.*

EXHIBIT A.

First. Beginning at a stone in the liberty road, thence north 71¾ degrees east one hundred three and *and* six-tenths perches to a stone; thence along the line of land of heirs of A. M. Hill south 70½ degrees east fifty-five and four-tenth- perches to a stone; thence by land of James Collins south 10½ degrees west two hundred one and seven-tenth- perches to white oak; thence by land late of Joseph Hair, deceased, north 62½ degrees west fifty-seven and one-tenth perches to white oak; thence by same north 48 degrees west fourteen and nine-tenth- perches to stones in the said road; thence north 56 degrees west fifty-eight perches to stone in said road; thence north ¾ degrees east fifty-two perches to stone in said road; thence north 1½ degrees east 28 and four-tenth- perches to stone in said road; thence north 11¼ degrees west thirteen and five-tenth- perches to stone in said road; thence north 7½ degrees west twenty-two perches to place of beginning, containing one hundred forty-one acres and seventy-six and five-tenth- perches (141 a. 75.5 p.), strict measure.

Second. Beginning at a stone in the Liberty road, the place of beginning of the above-described tract of land, thence south 71¾ degrees west thirty-nine and one-tenth perches; thence south 20 degrees east twelve and five-tenth- perches; thence south 61½ degrees east fourteen and three-tenth- perches; thence south 6 degrees east thirty-six and six-tenth- perches; thence north 80 degrees east twenty-two perches to a stone in said road; thence north 1½ degrees east twenty-eight and four-tenth- perches to a stone in said road; thence north 11¼ degrees west thirteen and five-tenth- perches to a stone in said road; thence north 7½ degrees west twenty-two perches to the place of beginning, containing ten acres and one hundred and twelve perches (10 a. 112 p.), strict measure—

Together with a right of way for a road over other land of said Joseph Hair, to be used only in taking out and carrying away the coal in and under the first above described tract of land, to be so used as not to injure the said land over which the said right of way is granted—

Subject also to right of way reserved by the said Joseph Hair to himself, his heirs and assigns, for a road over the last above described tract of land, said road to lead from the Liberty road, at the beginning corner of said tract, along the line "south 71¾ degrees west thirty-nine and one-tenth perches" in the foregoing description to a coal bank now opened on said Hair's land on the west side of Dickinson's run, said right of way to be so used as set forth in deed from Joseph Hair and wife to Robert Hogsett and Alpheus E. Wilson, dated January 30th, 1866, recorded in Deed Book No. 17, page 358.

11 Third. Beginning at stones in line of land late of Hugh Parkhill, thence by same south 21 degrees east one hundred — twenty-four perches; thence by land late of Joseph Hair, deceased, 71¼ degrees east forty and eight-tenth- perches; thence by land late of Alexander J. Hill and others north 17 degrees west thirty-nine and two-tenth- perches; thence north 39¾ degrees west forty-eight perches; thence north 28 degrees west thirty-four and eight-tenth- perches; thence south 84 degrees west twenty-five perches to the place of beginning, containing twenty-six acres and seventy-seven and one-half perches (26 *p.* 77½ p.), strict measure.

Fourth. Beginning at a stone, thence by land late of Isaac Hurst north 19¾ degrees west one hundred forty and three-tenth- perches; thence by land now or late of George Boyer south 85 degrees west twelve and three-tenth- perches to a stone; thence south 53 degrees west fifty-seven perches to a stone; thence north 78 degrees west ten perches to a post; thence south 31 degrees west forty-eight and seven-tenth- perches to centre of road; thence south 50 degrees west twenty-eight and seven-tenth- perches to corner in the road; thence south 56½ degrees west thirty-five perches to corners in road; thence south 25 degrees east fifty-eight and seven-tenth- perches to hickory pointer; thence north 88 degrees east twenty-eight and five-tenth- perches to walnut stump; thence south 45 degrees east seventy-three and six-tenth- perches; thence north 28½ degrees east thirty-two perches to stone; thence by land late of Joseph Hair, deceased, north 51¼ degrees east ninety and seven-tenth- perches to place of beginning, containing one hun-

12 dred thirty-six acres and ninety-seven perches (136 a. 97 p.)— Subject to the right of way granted to the Pittsburgh, McKeesport and Youghiogheny Railway Company, its successors or assigns, over or through any of the above-described tracts of land.

H. & G. C. BURGWIN,
Solicitors for Complainants.

H. D. GAMBLE, *Clerk.*

Please enter our appearance for complainants.

H. & G. C. BURGWIN.

Filed Sept. 20, 1887.

H. D. GAMBLE, *Clerk.*

Chancery Subpœna.

UNITED STATES OF AMERICA,
Western District of Pennsylvania.

The United States of America to John H. Shoenberger, a citizen of the State of New York and residing in the city of New York, and George K. Shoenberger, a citizen of the State of Ohio and residing in the city of Cincinnati, Greeting:

13

We command you and every of you that you appear before our judges of our circuit court of the United States of America for the western district of Pennsylvania, at the city of Pittsburgh, in said district, on the first Monday of October next, to answer the bill of complaint of Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, and James Cochran, citizens of the Commonwealth of Pennsylvania, filed in the clerk's office of said court, in the city of Pittsburgh, then and there to receive and abide by such judgment and decree as shall then or thereafter be made, upon pain of judgment being pronounced against you by default; and this you are in nowise to omit, under such penalties as are inflicted by the laws of the United States.

Witness the Hon. Morrison R. Waite, Chief Justice of the Supreme Court of the United States of America, at the city [L. S.] of Pittsburgh aforesaid, this 20th day of September, in the year of our Lord one thousand eight hundred and eighty-seven, and of our Independence the 112th.

H. D. GAMBLE, *Clerk.*

MEMORANDUM.—The above-named defendants are required to enter an appearance in the above-entitled cause on or before the first Monday of the month ensuing twenty days after the service

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of this writ; otherwise the complaint may be taken against them as confessed and a decree entered accordingly.

H. D. GAMBLE, *Clerk.*

Service accepted this 3rd day of October, 1887.

GEORGE SHIRAS, JR.,
Att'y for Def't.

And now, Oct. 3rd, 1887, service accepted for the defendants by their att'y, George Shiras, Jr., as per endorsement on this writ.

So ans.—

GEO. W. MILLER, *U. S. Marshall,*
Per W. B. CHAMBERS, *Deputy.*

Services and copies, $5.00.

Decree for Partition and Appointment of Master.

In the Circuit Court of the United States for the Western District of Pennsylvania.

JAMES COCHRAN *et al.*, Plaintiffs,
against
JOHN H. SHOENBERGER *et al.*, Defendants.
} No. 18. November Term, 1887.

And now, to wit, November 19th, 1887, this cause came on to be heard upon bill and order that the same be taken *pro confesso* against the defendants in default of an appearance and answer upon motion for a decree for partition, and upon consideration of the matter contained in said bill and by and with the consent of the defendants' counsel the court do now order and adjudge as follows:

First. That the plaintiffs, James Cochran and Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, are together entitled to the undivided one-half part or share of, in, and to the lands and premises described in the bill filed in this case.

Second. That the defendants, George K. Shoenberger and John H. Shoenberger, are entitled to the remaining undivided one-half (½) part or share of, in, and to the lands and premises aforesaid; and the court do further order, adjudge, and decree that a fair and just division and partition of the real estate and premises aforesaid be made according to law between the several and respective parties entitled thereto as above set forth according to their several and respective interests and estates thereof—that is to say, that one-half (½) part or share of, in, and to the said lands and premises, according to the rateable and relative value thereof to the whole, be set apart and allotted in severalty by metes and bounds to the above-named James Cochran and Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, in fee, to be held by them in common in the following proportions or shares, to wit, James Cochran the undivided one-half (½) thereof, and Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, the undivided one-half thereof, provided the same may be done without prejudice to or spoiling the whole.

16 And that one-half (½) part or share of, in, and to the land and real estate aforesaid, according to the rateable and relative value thereof to the whole, be set apart and allotted in severalty by metes and bounds to the above-named George K. Shoenberger and John H. Shoenberger in fee, to be held by them equally between them; and the court do further order and direct that a commission issue to Cicero Hasbrouck as master to make division and partition of the real estate as before decreed, with such owelties as he may deem necessary to equalize said partition, provided the same may be done without prejudice to or spoiling the whole, subject *ot* the approval of the court on report thereof made; and if

such partition cannot, in his opinion, be made without spoiling the whole he is then to divide the said real estate into so many purparts as in his opinion will be to the best advantage and to the enhanced value thereof, and thereupon to make a fair and just appraisement of said several purparts and report of said division and appraisement to the court for its further order thereupon.

By the court:

H. D. GAMBLE, *Clerk.*

Filed Nov. 19, 1887.

H. D. GAMBLE, *Clerk.*

17 In the Circuit Court of the United States for the Western District of Pennsylvania.

WM H. BROWN'S SONS and JAMES COCHRAN *against* JOHN H. SHOENBERGER and GEORGE K. SHOENBERGER. } No. 18. Nov. Term, 1887. In Equity. Partition.

Master's Report.

To the honorable the judges of said court:

The undersigned, appointed master in the above case, respectfully reports—

That after due notice to the counsel of both parties he met with them and as many of the parties as desired to be present on the land and premises described in the bill on the 9th day of December, 1887, and then and there viewed and examined the same, and also from time to time thereafter met the parties and their counsel at his office, in the city of Pittsburgh, where evidence was offered by the parties, as shown by the minutes of proceedings and evidence herewith returned.

The property in question consists of two tracts of coal lying on the opposite sides of a little valley between them, and also three acres of surface land in this valley between them. The tract of coal on the east side, called the Hogsett & Wilson tract, contains 142.66 acres of coal, to which must be added 2.65 acres of coal under
18 the surface land in its front, making 145.31 acres of coal in that tract.

The tract of coal on the west side, called the Parkhill tract, contains 86.30 acres.

Through this valley, between these two tracts of coal and over the said surface land, extends a railroad running through this coke region, which must furnish the outlet for the coal and coke when these mines shall be worked. Neither of these tracts of coal have yet been opened.

It is admitted by both parties that these two separate tracts of coal, with a proper part of the said surface land annexed to each must constitute the division or partition of the whole into two pur-

parts. It is also admitted and agreed that the Parkhill tract of coal on the west side of the railroad (86.30 acres) will best accommodate the plaintiffs, as they are the owners of adjacent coal and land, &c.

And the first question is, how shall the surface land be divided between the two tracts of coal, so as best to accommodate both?

The plaintiffs claim that the surface land should be divided by the railroad running through its entire length, having 12.60 acres on the side of the Parkhill tract, the west side, and 24.45 acres on the side of the Hogsett & Wilson tract (145.31 acres).

While the defendants claim that the whole of the surface which lies in front of the Hogsett & Wilson tract, on both sides of the railroad (about ten acres), should go with that tract.

19 It will be seen by the map that of the 36 acres of surface the southern part (called the 10 acres tract) lies directly in front of the Hogsett & Wilson tract, on both sides of the railroad, and that the Parkhill tract also fronts on the same 10 acres, on the opposite side, for the distance of 205 feet, and that the railroad divides this 10 acres in such manner as to leave much the larger portion on the side of the Hogsett & Wilson tract.

The evidence on this point on part of plaintiff- is substantially as follows:

E. J. Taylor, a civil and mining engineer of much experience, who has surveyed these lands and made the two maps offered in evidence (exhibits marked Jan. 19 and May 8, 1888), says (Ev., p. 167) that after his examination and calculations he is firmly convinced that the surface should be divided by the railroad, and gives his reasons therefore. He is corroborated by several other witnesses.

Josiah A. Strickler, who has been in the coke business fifteen years, says (Ev., p. 2) these two tracts of coal and the surface are divided by the railroad as properly as they could be.

John McFadden (Ev., p. 13) says the railroad should be the dividing line. Both pieces are nicely located, taking the track (railroad) as the dividing line.

John S. Newmeyer, a coke operator, has examined the property and says (Ev., p. 225) the railroad would make the proper division of the surface land, and gives his reasons, that he would locate

20 the ovens as on the map, and that room for siding is needed above and below the ovens.

John Jones, engaged in the coke business, says (Ev., p. 187) he would divide the surface by the railroad, to suit both tracts of coal, so as to have sidings above the ovens.

Wilson Rosser, superintendent of the Schoonmaker coke works, says (Ev., p. 191) the division should be by the railroad.

Wesley H. Cotton says (Ev., p. 216) the coke works in that region have sidings above the ovens for empty cars whereever they can conveniently have them, and of 41 coke works all but 13 have sidings above the ovens, and those thirteen had not room for them above the ovens.

Thomas Adams, supervisor on the B. & O. railroad, says (Ev., p. 220) all cokemen want siding above the ovens where there is room.

John K. Tagart, superintendent of the Connellsville Coke and Iron Company, says (Ev., p. 239) that the railroad is the proper division.

The evidence offered by the plaintiffs also tends to prove that in order to work these mines the coke ovens should be located as shown on the map, eighty-four ovens on the Parkhill tract, commencing above 200 feet south of the Alexander Hill line and extending northwardly (920 feet), as shown on the map, and that if this row of 84 ovens was commenced 205 feet lower down, at the Alexander Hill line, so as to give the "panhandle" to the Hogsett & Wilson tract, these would not be room for the ovens on suitable ground, as
21 immediately beyond the point at the north end, as located on the map, the ground is too low to build ovens on, and that if filled up ten or eleven feet there to build on the ovens would cost much more, and such filling would not be suitable to build on; they should be built on solid ground.

This evidence is not disputed; but it is said by one of defendants' witnesses that 50 ovens would be enough for the Parkhill tract.

The evidence on this point, on part of defendants, is substantially as follows:

Alex. J. Hill says (Ev., p. 44) he thinks all the surface in foront of the Hogsett and Wilson tract (10 acres), on both sides of the railroad, should go with it, because it lies in front of it.

Thomas Johns, a manager of coal works (Ev., p. 55), says the same and for the same reason; and also that the part across the railroad would be a handy place to dump ashes from the works.

Julius C. Shipley, mining and civil engineer (Ev., p. 64), says there is a stream of water running through this surface road west of the railroad, and that the railroad keeps this stream of water off from the Hogsett and Wilson tract, and that the ten acres (all the surface on both sides of the railroad in front of the Hogsett and Wilson tract) should go with it. He would divide the surface, as shown by a plan of it herewith returned, giving to the Hogsett and Wilson tract all the surface immediately in its front, on both sides of the railroad, and all the surface on the east side of the railroad
22 for the distance of about 1,400 feet, as shown by the red lines on the plan, and giving to the Parkhill tract a part of the surface on the west side of the railroad, with a portion also on the east side, at the north end, as shown by the plan.

He would also have the engine and machinery, or some part of it, for the Hogsett & Wilson tract placed on the west side of the railroad when they come to mine the coal, and he thinks it would be advantageous to the Hogsett and Wilson tract to have the surface on both sides of the railroad to discharge the water from the mines into the run, and to deposit ashes from the ovens into the run. (Ev., p. 66.)

He cannot see that the land on the west side of the railroad, in front of the Hogsett and Wilson tract, would be of any value to the Parkhill tract, because there is no place to locate ovens there, being taken up by the stream (Ev., p. 67). He says in locating 80 ovens

it wou-d take 1,080 feet, and no more siding than the one in front of the ovens would be needed. (Ev., p. 80.)

He also says there would be no necessity for using machinery in mining the Parkhill coal. (Ev., p. 84.)

He says, however, that it would be more convenient to have all the surface necessary on the same side of the railroad if it could be had. (Ev., p. 90.)

Frank R. Bradford, superintendent of coke works, says (Ev., p. 124) the division of the surface should be made by the Alex. Hill line (the same as shown on the plan of the surface only), or by a line running from the corner of the Joseph Hare tract to the railroad (a line parellel to the Alex. Hill line) and 205 feet south of it. See map. (Ev., p. 124.)

23 He thinks the creek in front of the Hogsett and Wilson tract would be of advantage to it to discharge the water from the mine and to carry off rubbish from the coke ovens (Ev., p. 124). He cannot see that the "panhandle" (the surface in dispute) would be of any use to the Parkhill tract. (Ev., p. 125.)

On cross-examination he says (Ev., p. 131) he would want waste-car siding above the ovens, so the empty cars could drop down; that that is the usual way.

Again he says (Ev., p. 133) there is plenty of room for sidings without the "panhandle" by doubling the siding (in front of the ovens), and that the "panhandle" is not needed for waste-car siding, and that very few construct in that way. (Ev., p. 133.)

Arthur W. Bliss, engaged in the coke business, says (Ev., p. 102) he thinks the creek is about the line of division down to the Alexander Hill line; that the water of the creek would be advantageous to the Hogsett and Wilson tract in making coke and for deposit of ashes. (Ev., p. 103.)

He also says the small strip (in dispute) would be of no advantage to the Parkhill tract; that 80 ovens would be an extreme number for it, and that 50 ovens would in his judgment be sufficient for it, and that there would be abundant room for parallel siding if divided by the Alex. Hill line.

He also says (Ev., p. 114) he would divide the surface by a straight line; thinks it would be a very unreasonable man who would leave that horn (the piece in dispute called the "panhandle") attached to this Parkhill when it is naturally opposite the Hogsett and

24 Wilson tract; that it would be more desirable to the Hogsett and Wilson than the Parkhill tract, because the ground is limited here and every foot is desirable. (Ev., p. 114.)

He further says (Ev., p. 115) it would be more desirable for the Hogsett and Wilson tract to have the surface on the same side of the railroad if they have the same amount, with the facilities for drainage and operating, "but under no circumstances could this 'panhandle' be attached to the Parkhill tract."

He can see no use of the "panhandle" to the Parkhill tract (Ev., p. 116). He says, however, it is best to have the surface together (on same side of the railroad with the coal), and that the

panhandle could be attached to the Hogsett and Wilson tract by moving the railroad a very little way.

Abraham Lash, civil and mining engineer, says (Ev., p. 139) he would give all the surface south of the Alex. Hill line to the Hogsett and Wilson tract and divide the residue by the railroad.

I am satisfied from the evidence that both the tracts of coal will be best accommodated by dividing the surface land by the railroad, giving to each sufficient for coke ovens and sidings, whereby the 145 acres of coal will have 24.45 acres of surface attached to it, and the 86 acres of coal will have 12.60 acres of surface attached to it.

This is certainly as large a proportion for the larger tract as can be claimed for it.

The principal contention has been over a very small piece-of the surface called in the evidence the "panhandle," on the west
25 side of the railroad, lying partly in the immediate front of the Parkhill coal and extending in a narrow strip above it along the railroad, and which would afford room for a side track or switch above the ovens for one or two days' supply of empty coal cars, which could be dropped down by gravity to the ovens each day as wanted. The importance of this to the Parkhill coal is clearly shown by the evidence, and it is quite easy on a little reflection to understand why, as Thomas Adams, a supervisor on the B. & O. railroad, says, "all cokemen want siding above their ovens where there is room."

While so many of the defendants' witnesses oppose this division by the railroad and say this "panhandle" should be annexed to the Hogsett and Wilson coal across the railroad, it is proper that we should consider the reasons they give.

Two give the reason that it lies in front of the Hogsett and Wilson coal; but it lies also in front of the Parkhill coal, 205 feet of it immediately in front and the balance above and substantially in front of it.

Julius C. Shipley, another witness, who cannot see that the "panhandle" would be of any value to the Parkhill tract, because there is no room on it to locate ovens, being taken up by the stream, yet he tells us he would have the engine and machinery or some part of it for the Hongsett and Wilson tract placed on this ground, where he says there is no room for ovens, and which he says is taken up by the stream.

He would also have this annexed to the Hogsett and Wilson tract to discharge the water from the mine into the stream of water on it, which stream is kept off from that tract by the railroad;
26 and while he would divide the surface so as to give a part to each on both sides of the railroad, he admits that it would be more convenient to have all the surface needed on the same side of the railroad if it could be had.

Frank R. Bradford, another witness, while he cannot see that this "panhandle" would be of any use to the Parkhill tract, yer would want siding above the ovens, so the empty cars could drop down in the usual way; and he further says there is plenty of room for sidings without the panhandle by doubling the sidings (in front of

the ovens), and that this panhandle is not needed for waste-car siding, and that very few construct in that way.

Arthur W. Bliss, another witness, thinks this small strip would be of no use to the Parkhill tract; that 50 ovens would be enough for it (86 acres); that ot would be more useful to the Hogsett and Wilson tract because the ground is limited here. He also says it is more desirable to have the surface on the same side of the railroad, &c., but under no circumstances could this panhandle be attached to the Parkhill tract, and he would even have the railroad moved from its present location to get this strip attached to the Hogsett and Wilson tract.

Another reason given by several of these witnesses is that the water might flow from the Hogsett and Wilson mine into the creek; but it would have to flow through the culverts under the railroad, as other surface water does now, whether this strip was annexed to the Hogsett and Wilson tract or not.

27 These witnesses seem to have in view only the interest of the Hogsett and Wilson tract, when they would deprive the Parkhill tract of the necessary room for ovens and side track above the ovens, and cut off its flow of water through this strip to the creek, if according to their theory the ownership of this surface were necessary to empty the mine water from either of the two oracts into the creek merely to give the Hogsett and Wilson tract access to the creek in this way for the flow of its water and for dumping its ashes into the creek.

One of them seems to think that while 86 ovens would be needed for 86 acres of coal in general, 50 ovens would be enough for the Parkhill tract, if thereby a part of this surface in its front corner could be given to the other tract.

A glance at the map will show that the Hogsett and Wilson tract will get fully two-thirds or more of the ten acres of surface in its immediate front when divided by the railroad, and have room for ovens and for siding above its ovens.

The next question is what is the value of the two purparts; for, as we have seen, it is admitted that this property can only be divided into two parts, and that the 145 acres of coal on the east side of the railroad, called the Hogsett and Wilson tract, with a proper part of the surface land annexed to it, must form one purpart, and the 86 acres of coal on the west side of the railroad, called the Parkhill tract, with a proper part of the surface land annexed, must form the other purpart.

28 It would seem that the value of any particular tract of coal in that region depends much upon its situation with reference to the facilities for mining it and converting into coke and getting the coke into cars on the railroad, and several of the witnesses fix their opinion of value by estimating what will probably be the expense of operating these mines in the future, when they shall be used for coke works.

The coal in that region dips to the southeast, so that while the coal in the Parkhill tract of 86 acres, on the west side of the valley and railroad, crops out on the edge of the valley and rises toward

the northwest in the hill, the coal in the Hogsett and Wilson tract (145 acres), on the east side, crops out on the west side of the valley, and instead of rising from the front descends towards the southeast into the hill, and soon passes below the level of the valley.

The grade of ascent and descent in these two mines, or the general slope of the coal there, is estimated to be from 3½ to 4 feet in the hundred.

The evidence on part of the plaintiffs as to values may be briefly stated in substance as follows:

Josiah A. Strickler, a coke operator, says (Ev., p. 1) he knows the property; has an idea of the value of coal in that region, based on sales that have been made. He says the larger tract would be considered worth about $400 per *care* and the other, perhaps, $450 or $475. (Ev., p. 2.)

That he should have said the difference would be $100. He fixes that simply because that is the difference made in
29 that region (between drain coal and pump coal). Ev., p. 4. He say- the pump coal produces heavier coke, and that the surface land is worth $200 per acre.

John S. Newmeyer, a coke operator, says (Ev., p. 5) that he has examined this property; has knowledge of value of coal land in that neighborhood to some extent.

He values the Hogsett and Wilson tract at $400 per acre and the Parkhill tract at $450 per acre, and gives his reasons. He thinks the dip coal (Hogsett and Wilson tract) is well located for operating; that it can be easily got at in one or two ways; the best way to run a slope to the lowest point, and then the coal will all be drained at that one place and the coal hauled down grade (in the mine), and pull out by ropes, which he thinks as cheap as mule power.

He thinks $200 a fair price for the surface per acre.

Joseph H. Paddock, civil and mining engineer, says (Ev., p. 8) he knows the property and the value of such tracts from sales made in the coke region.

He considers the Parkhill tract more valuable than the other per acre, and that if the Parkhill coal had no crop (more than the usual allowance) believes it would be worth $100 per *care* more than the Hogsett and Wilson tract; but not being able to determine until mined how much crop it would have, he would make the difference less if buying it. He would not make the difference more than $50 or $60 per acre.

John McFadden has been in charge of coke works for years; has examined this property; knows the values of coal
30 from sales made; values the Parkhill coal at $400 and the other at $350 per acre and the surface at $200 per acre. (Ev., p. 13.)

If the tracts were large enough for 25 years' working, the difference between self-draining and pump coal would be $100 per acre, for the reason that the improvements become of no value after the coal is worked out. (Ev., p. 14.)

George C. Marshall, in the coke business; has mines above and below the w*ta*er level; examined this property; has knowledge of

sales and values of coal and land in that region; values the Hogsett and Wilson tract at $350 per acre, and the Parkhill at $400, the surface at $200, per acre. (Ev., p. 17, 18, 19.)

Wilson Rosser, superintendent of Schoonmaker coke works, has examined this property; knows the value of coal; Hogsett and Wilson coal worth $300; Parkhill, $375 per acre. (Ev., p. 19, 20.)

J. C. Core, a farmer living near, knows of most of the sales of coal and land there; knows this property; thinks the Parkhill coal worth $100 per acre more than the Hogsett and Wilson coal; gives several sales; values the Hogsett and Wilson coal at $400 and the Parkhill coal at $500 per acre. (Ev., p. 154.)

John K. Taggert, superintendent of Connellsville Coke and Iron Company; had a knowledge of values in that region; has examined this property; thinks the Parkhill tract worth $50 per acre more than the other. (Ev., p. 238.)

31 The evidence on part of defendant- on this point is substantially as follows:

James S. Devlin, civil and mining engineer of much experience, on his first examination (Ev., p. 22), before seeing this property, and from a representation that one tract of 86 acres is self-draining and can be worked by a drift on a level, and the other 142 acres below water level, requiring to be pumped, and the coal hoisted 80 or 100 feet by a shaft or slope, says he is of opinion the difference would be from $250 to $300 per acre, and gives a calculation of expense of working by a slope or shaft. (Ev., p. 22.)

On a subsequent examination and after having examined this property (Ev., p. 33) he says the openings (outcrop) of these two tracts of coal are nearly on a level with the railroad, and when coke ovens are built in front of the 86 acres and the 142 acres a side track will be needed in front of each row of ovens of about the same level and inclination as the railroad, and the oven yard (between ovens and track, or base of the ovens) will be five feet above the track, the ovens built 10 feet high, making top of ovens 15 feet above the railroad switch in front, and on top of the ovens will be the larry track, increasing the height to 1½ or 2 feet more, making 16½ or 17 feet above the track.

That to get the coal into the ovens it must be raised that much or more; and if a bin is built to contain 30 to 50 wagons of coal it would be 20 feet above the ovens, making 37 or 40 feet the coal must be raised above the railroad or pit mouth to get it into the bin for charging the ovens.

32 He explains another method by entering both mines at a point 40 feet higher, but deems the first method the best, and says the vertical lift at each pit mouth would be the same. (Ev., p. 35.)

He then gives a calculation of expenses resulting in $67 per acre on the Hogsett and Wilson tract over the other to get ready to take out the coal, and another $67 per acre for cost of pumping the Hogsett and Wilson tract for a period of 15 years, the estimated time it would last after the mining was commenced. He thus estimates the difference of $134 per acre in favor of the Parkhill tract.

Alexander J. Hill, manager of the Raney coke works, says (Ev., p. 42) he knows this property; has had several years' experience in the coal and coke business; thinks $200 per acre difference. (Ev., p. 43.)

He thinks the surface worth $50 to $75 per acre, and the 142 acres of coal (H. & W.) would be worth $300 to $350 per acre, and the Parkhill, $500 to $550 per acre. (Ev., p. 49.)

Thomas Johns, engaged in the coke business, has seen this property; not well acquainted with it; the Parkhill tract he thinks worth $450 to $500 per acre; it is mostly self-draining; the other must be pumped; worth $300 to $400.

He cannot speak from experience, but thinks from $150 to $200 difference for difference in expense of working. (Ev., p. 54–'5.)

Julius C. Shipley, civil and mining engineer, examined these tracts; thinks difference about $200 per acre (Ev., p. 60) and worth $400 and $600 per acre respectively. (Ev., p. 74.)

33 Frank R. Bradford, superintendent of coke works, examined this property; thinks $200 difference per acre; based on difference of working.

Arthur W. Bliss, engaged in the coke business, has worked both slope and drift mines; has been on this property.

He says (Ev., p. 96) the Parkhill tract is unusually favorably located; rather remarkable; does not suppose there is another similar piece in the region, not to his knowledge, because it is all above water level, self-draining, and very desirably located as to the railroad, and the convenient location of ovens, sidings, &c.

The Hogsett and Wilson tract is all under water; would have to be worked by slope or shaft.

He thinks the two tracts (86 acres and 142 acres) of equal value; the smaller worth as much as the larger. He would give the preference to the smaller tract as an operator. (Ev., p. 97.)

In the Hogsett and Wilson the slope should follow the dip; "the water would follow the entire distance; follow the mining operations; would be mining in water all the time" (Ev., p. 98). "No way of evading that at all in that tract; the pumps would have to follow your operations every day."

He says the H. & W. coal is worth $400 and the Parkhill $600 per acre. (Ev., p. 104.)

Charles Donnelly, in the coke business, (Ev., p. 1) says he is not a very good judge; suppose $250 to $300 difference; hard to tell the difference in value; would give as much for the 86 acres
34 as for the 142 acres; never saw the coal land; don't know it; judges from information received from Mr. Devlin.

M. A. Frick, in the coke business (Ev., p. 7), says difference between drift and shaft coal at least five cents on the ton of coke. One acre of coal will make 6,000 to 7,000 tons of coke; don't know very much about this property; could not give an idea of values, only the difference between drain and pump coal; five cents a ton on coke difference in expense; always estimates it at $300 an acre; if drift coal had to be elevated to the ovens, would make some difference, but even then five cents a low estimate.

The testimony of the last two witnesses was objected to as not rebuttal, defendants having previously closed their evidence.

This objection is overruled, as it involves only the order of offering the testimony. Perhaps these two witnesses could not have been obtained before, and the plaintiffs were at liberty to offer other testimony on their side to meet it if they desired.

John McFadden was recalled by plaintiffs July 3, 1888 (Ev., p. 231), and stated that he examined the tracts of coal and surface divided in partition between these same parties at No. 48, Nov. term, 1886, wherein there were 228 acres of self-draining coal and 208 acres of pumping coal, and he thinks the two cases are very similar, except the other tracts were larger; pump and drain coal in both; thinks the relative value the same in the two cases,
35 the two properties only a half mile apart, and if $50 difference in that case thinks this should be the same.

Defendants' counsel moved to strike out this evidence because not admissible to prove value by proof of single instances of value.

E. J. Taylor was also recalled by plaintiffs and stated that the coal heretofore partitioned between these same parties at No. 48, Nov. term, 1886, was similar (except as to quantity) to that now in question, in regard to drainage, &c., and that the difference between the two as *formed* in that case, $50 per acre, should cover the difference in this case.

This evidence was objected to as above, as incompetent, and defendants' counsel moved to strike it out also.

Plaintiffs also offered the record in No. 48, Nov. term, 1886, the master's report and decree of the court therein, as evidence of the relative value set upon the two kinds as claimed by defendants in that case, and by way of estoppel as against the defendants.

This was likewise objected to by defendants' counsel as incompetent and irrelevant.

These three objections are sustained, for the reason that this testimony of John McFadden and E. J. Taylor and the record of the former partition all involve a comparison between the difference as *formed* between the two tracts in the former case ($50 per acre) and the difference between the two tracts in this case, as testified
36 to by some of the witnesses; and this evidence offered, taken together, amount, to no more than offering to show by that record what was found in that case to be the difference in value between pump and drain coal as a measure of difference in this case. John McFadden had previously given his opinion of the value of each tract, which is the true inquiry, and that is not strengthened by his testimony under the above offer, but only by the record referred to. Mr. Taylor says the two cases are very similar, and therefore the difference ($50) in the former case should be the difference in this.

Then it is the record (or finding in the former case) that is the evidence of difference in this case.

Is, then, the record and finding of the respective values of the two tracts in the former case, showing a difference of $50 per acre, evi-

dence that $50 is the difference in this case, granting the two cases are similar?

I think not; for the finding in the former case was the value of the respective purparts, and the difference, $50, was only an incident of it. But there is not an exact similarity in these two partitions; the quantities are different, which is said by some of the witnesses to affect the value, and other differences as to location, &c., if not of value.

This testimony of McFadden and Taylor and the record offered as above are excluded in the consideration of this case.

It is admitted by both parties that these two tracts of coal, like all others in that region, are especially valuable for the making of coke, and it is with reference to that fact that much of the evidence
37 has been directed, to show the advantages of the respective tracts not only for getting out the coal for the mine, but also for converting it into coke and getting the coke into the cars on the railroad for shipment.

The coal in the mine is but the fountain of supply for the coke works that may be erected in the future to convert this coal into a manufactured article of commerce ready for the market; hence the inquiry has been, What are the advantages possessed by these two tracts of coal respectively for the production of coke in the usual way which gives them especial value?

I think it is clearly shown by the evidence that the best way to work these mines will be to open the pit mouth on the Parkhill tract near the outcrop of the coal, at the point maked "pit mouth" in red on the map, and drive the main entry towards the western part of the tract, so the main portion of the coal can be brought down to it by cross-entries from the northwest on a descending grade, and the Hogsett and Wilson tract can best be mined by opening the pit mouth near the outcrop, at the point marked "pit mouth" on the map, and driving the main entry or slope down to the limit of the tract at its lowest point, to which all the water will be drained, and mining the coal by cross-entries at right angles, or nearly so, to the main entry, so that the coal will be brought out on a level or slightly descending grade to the main entry, whence it can be drawn up the slope or main entry by a cable drawn by steam power from a stationary engine outside the mine.

38 & 39 For it is plain that if the slope or main entry descends with the greatest dip of the coal the cross-entries at right angles to it must be on a level, and if the cross-entries be deflected slightly from a right angle, those on the right-hand side going down to the right and those on the left-hand side to the left, those cross-entries will rise slightly from the main entry on both sides of it, and the coal brought out on the cross-entries will have a slightly descending grade to the main entry or slope, and the water from those cross-entries will flow down into the main entry, and down it to its end or lowest point, whence it can be drained by pumping with steam power outside the mine.

Thus the operators inside the mines of both of the tracts of coal will be alike, except in getting the coal out of the main entry to the

mouth of the pit in the Parkhill tract it will be a down grade, while in the other it will be on an up grade, and in the first the water will flow out of the main entry, but in the other must be pumped out.

After the coal is thus brought to the surface at the pit mouth it must be raised at both mines alike to a sufficient elevation to get it into the ovens.

This can best be done, it seems, by an upright lift of about forty feet, by steam power, to empty the pit wagons into a bin, whence it will be carried by cars for that purpose on a track to the top of the ovens.

This is explained by the testimony of Mr. Devlin, the engineer. In this respect both mines alike require an engine and machinery to raise the coal to get it into the ovens.

40 The witness, Mr. Bliss, is certainly mistaken when he says the Hogsett and Wilson tract is all under water, and that the water would follow the mining operations in it, and that they would be mining in water all the time and have no way of avoiding it in that tract, unless he be understood as referring only to the making of the main entry or slope, which is but a preparation for working the mine. After that is done the work in the two mines would be alike, both either on a level or up grade on the cross-entries and rooms running from them, and the pit wagons drawn to and from the main entry by mules in both mines alike; the water would flow back from the miner, when working, in both cases alike.

The reasons given by some of the witnesses for depreciating the value of the Hogsett and Wilson tract by their estimates of the increased cost of mining, &c., over that of the other tract are, in my opinion, unsatisfactory.

The cost of pumping out the water by steam power and of drawing up the coal in the main entry to the mouth of the pit would seem to be the chief difference.

It has been urged that the cost of pumping is constant, even when the mines are not working. This is indeed very true. But whether the increased amount of steam power required to pump and draw the coal out of the main entry of the Hogsett and Wilson tract would exceed the increased cost of the additional number of mules to be kept at all times in the Parkhill tract to bring out the same amount of coal is a question of some doubt.

The witnesses for the plaintiffs generally speak from a knowledge of the values of coal property in the neighborhood and from
40½ sales heretofore made and give the difference between the two at from $50 to $100 per acre.

Three out of six who give values say $400 per acre for the Hogsett and Wilson coal; two say $350, and one $300.

Of the defendants' four witnesses who give their opinions of values (but not from a knowledge of values of surrounding property), two say $400 for the Hogsett and Wilson coal, and two $300 per acre.

Three of them say the difference is $200, and the other $150 per

acre. Of these, two give $600, one $500, and one $450 as the value, in their opinion, of the Parkhill coal.

Two others give only their opinion of the difference; one says $200; the other $250 per acre.

Mr. Devlin gives an estimate of the expenses attendant upon the preparation and working of the Hogsett and Wilson coal over and above that of the Parkhill, resulting in what is equal to $67 per acre for the cost of the plant when the mine shall be prepared for working; and another $67 per acre in the working of the mine during a period of 15 years, which he estimates it to last, making together $134, the computed difference in value per acre of the two tracts.

Now, if this were a present expenditure necessary to be made upon each acre of coal in the Hogsett and Wilson tract to make it equal to each acre in the Parkhill tract, it would measure the difference in the present value per acre.

But the first $67 on the cost of the plant will not be made until this coal mine, at some future time, shall be turned into a
41 manufactory of coke; it may be one year or many years hence.

Now, to ascertain its present value this $67 must be discounted for the time until the plant shall be made, and the other $67, to be expended along through a period of 15 years after the coke works shall be in operation, must be discounted for the additional period of fifteen years.

Taking Mr. Devlin's estimate to be correct as far as it goes, if we discount his $134 per acre, as above suggested, it would be reduced to $100 or less, and agree with several of the other witnesses on both sides as to the difference in the two tracts.

After a careful consideration of all the evidence I am of opinion that the 86.3 acres of coal in the Parkhill tract is of the value of $500 per acre, and that the 145.31 acres of coal in the Hogsett and Wilson tract (including the 2.65 acres of coal in its immediate front) is of the value of $400 per acre, and the surface land $200 per acre.

Thus the 86.3 acres of coal in the Parkhill tract on the west side of the railroad, at $500 per acre, amounts to	$43,150 00
And the 12.6 acres of surface land adjacent to it at $200	2,520 00
Making	$45,670 00
And the 145.31 acres of coal in the Hogsett and Wilson tract, on the east side of the railroad, at $400 per acre, amounts to	58,124 00
And the 24.31 acres of surface land adjacent to it, at $200 per acre, amounts to	4,890 00
	$63,014 00
And making the total value of the whole	$108,684 00

42 Plaintiffs' one-half of this is..... 54,342 00
Defendants' one-half of this is..... 54,342 00

I therefore find that the land and coal described in the bill can be divided, without prejudice to or spoiling the whole, into two purparts, and I have accordingly divided the same by the line of the "Pittsburgh, McKeesport and Youghiogheny railroad" into two purparts, "A" and "B," as follows:

Purport A being that part on the west side of the said railroad and comprising 86.3 acres of coal and 12.6 acres of surface land, the said coal being all the coal in and under all that certain tract of land described in the bill (Exhibit A, *dec.* 4), bounded and described as follows:

Beginning at a stone at the corner of the Joseph Hare tract, thence by the next described surface land, formerly Isaac Hurst's, north 19¾ degrees west 140.3 perches (2,326.2 feet on the map), thence by land, now or late of George Boyer, south 85 degrees west 12.3 perches (203 feet on map) to a stone, thence south 53 degrees west 57 perches (940.5 feet on map) to a stone, thence north 78 degrees west 10 perches (165 feet on map) to a post, thence south 31 degrees west 48.7 perches (803.6 feet on map) to center of road, thence 50 degrees west 28.7 perches (473.6 feet on map) to a corner in the road, thence south 56½ degrees west 35 perches (577.5 feet on map) to corner in road, thence south 25 degrees east 58.7 perches (968.6 feet on map) to a pin, thence north 88 degrees east 28.5 perches (475.2 feet on map) to a pin, formerly a walnut stump, thence south 45 degrees east 73.6 perches (1,215.9 feet on map), thence north 28½ de-
43 grees east 32 perches (521.5 feet on map) to a stone, thence by land, late of Joseph Hare, deceased, north 51¼ degrees east 90.7 perches (1,501.6 feet on map) to the place of beginning, containing 136 acres and 97 perches of land, in which there are 86.3 acres of coal, this being called the Parkhill tract, together with that part of the surface land mentioned and described in the bill (Exhibit A, sections 2 and 3), which lies on the west side of said railroad, bounded and described as follows:

Beginning at the corner of the Joseph Hare tract and the above tract, thence by the line of the above-described tract north 19¾ degrees west 135.76 perches (2,251 feet on map) to a pin on said line, thence north 86½ degrees east 7 perches (116.5 feet on map) to the Pittsburgh, McKeesport and Youghiogheny railroad, thence southwardly by the line of the said railroad to a point on the southern boundary line of the surface land described in the bill, thence south 80 degrees west 7.41 perches (S. 81½° W. 122.3 feet on map), thence north 6 degrees west 36.6 perches (N. 4½ W. 611.1 feet on map), thence north 61½ degrees west 14.3 perches (N. 60° W. 223.2 feet on map) to thep lace of beginning, containing 12.6 acres; which purpart A I have valued and appraised at the sum of forty-five thousand six hundred and seventy dollars.

And purpart B being that part on the east side of the said railroad and comprising 145.31 acres of coal and 24.31 acres of surface land, the said coal being all the coal in and under all that certain

tract of land described in the bill (Exhibit A, sec. 1), bounded
44 and described as follows:

Beginning at a stone in the Liberty road, thence north 71¾ degrees east 103.6 perches (1,704.5 feet on map) to a stone, thence along the line of land of heirs of A. M. Hill south 70½ degrees east 55.4 perches (918.6 feet on map) to a stone, thence by land of James Collins south 10½ degrees west 201.7 perches (3,342.1 feet on map) to a white oak (stump), thence by land late of Joseph Hare, deceased, north 62½ degrees west 57.1 perches (947.3 feet on map) to white oak (stump), thence by same north 48 degrees west 14.9 perches (245.8 feet on map) to stone in said road, thence north 56 degrees west 58 perches (960.7 feet on map) to stone in said road, thence north ¾ degrees east 52 perches (880 feet on map) to stone in said road, thence north 1½ degrees east 28.4 perches (468.6 feet on map) to stone in said road, thence north 11¼ degrees west 13.5 perches (222.7 feet on map) to stone in said road, thence north 7½ degrees west 22 perches (363 feet on map) to the place of beginning, containing 142.66 acres of land and coal;

And also all the coal in the next-described surfare land, being 2.65 acres of coal, lying in front of the above-described tract—

Together with that part of the surface land described in the bill (Exhibit A, sections 2 and 3) which lies on the east side of the said railroad, bounded and described as follows:

Beginning at a stone in road, thence by the above-described tract
north 1½ degrees east 28.4 perches (468.6 feet on map) to stone
45 in the road, thence by the same north 11¼ degrees west 13.5 perches (222.7 feet on map) to stone in said road, thence by the same north 7½ degrees west 22 perches (363 feet on map) to a stone in said road, thence north 39¾ degrees west 48 perches (792 feet on map), thence north 28 degrees west 34.8 perches (572 feet on map), thence south 84 degrees west 17.56 perches (289.8 feet on map) to said railroad, thence southwardly by the line of said railroad to a point on the southern boundary line of the surface land described in the bill, and thence north 80 degrees east 14.59 perches (240.7 feet on map) to the place of beginning, containing 24.45 acres; which purpart B I have valued and appraised at the sum of sixty-three thousand and fourteen dollars ($63,014.00).

And I also find that said purpart A will best accommodate the plaintiffs by reason of their owning adjoining lands and coal, and I therefore set apart, allot, and assign said purpart A, by metes and bounds as above described, to the plaintiffs, Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, and James Cochran, in fee, at the sais valuation of $45,670.00, to be held by them in severalty as to the defendants, but as tenants in common as between themselves, and to be held by them in the following proportions or shares, to wit: Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, the undivided one-half thereof, as copartners and not as tenants in common, as between themselves, and James Cochran the other undivided one-half thereof;

And to have and to hold the said purpart A by the same title

and subject to the same conditions as the said coal and
46 land in said purpart A was heretofore held by all the parties, plaintiffs and defendants, prior to this partition.

And I also find that purpart B will accommodate the defendants, and I therefore set apart, allot, and assign said purpart B by metes and bounds as above described to the defendants, John H. Shoenberger and George K. Shoenberger, in fee at the said valuation of $63,014.00 in severalty as to the plaintiffs, but to be held by them, the said John H. Shoenberger and Goerge K. Shoenberger, equally between them as tenants in common.

They to have and to hold the said purpart B by the same title and subject to the same conditions as said coal and land in said purpart B was heretofore held by all the parties, plaintiffs and defendants, prior to this partition.

Subject, however, to the payment by the said defendants to the said plaintiffs of the sum of eight thousand six hundred and seventy-two dollars ($8,672.00) as owelty in this partition, which sum is chargeable upon the said purpart B to equalize the said partition between the plaintiffs and defendants, it being one-half the excess of the value of purpart B over and above that of purpart A.

All of which is respectfully submitted.

C. HASBROUCK, *Master.*

September 10, 1888.

SEPT. 21, 1888.

Exceptions to the foregoing report filed by defendants' counsel.

OCTOBER 10, 1888.

Exceptions overruled.

C. HASBROUGH, *Master.*

Filed Oct. 11, 1888.

H. D. GAMBLE, *Clerk.*

47 *Minutes of Proceedings Before C. Hasbrouck, Master.*

In the Circuit Court of the United States for the Western District of Pennsylvania.

SAMUEL S. BROWN and HARRY BROWN, Partners, &c., as W. H. Brown's Sons, and JAMES COCHRAN *vs.* JOHN H. SHOENBERGER and GEORGE K. SHOENBERGER.	No. 18. Nov. Term, 1887. In Equity. Partition. Nov. 19, 1887, C. Hasbrouck Appointed Master.

Minutes of proceedings.

DEC. 9, 1887.

After due notice to counsel, met on the premises and lands described in the bill, in Fayette county, when and where George C. Burgwin, Esq., appeared for plaintiffs and C. C. Dickey, Esq., for

defendants; also Harry Brown and James Cochran, two of the plaintiffs, being present. We proceeded over the lands and premises in question, viewed and examined the same, and then adjourned to meet at my office, No. 409 Grant street, Pittsburgh, on Dec. 22, 1887, at 10 o'clock a. m., when and where James Cochran appeared; and, by consent of counsel, adjourned to meet at same place on Dec. 29th, 1887, at 10 o'clock a. m.

DEC. 29, 1887.

Met at 10 a. m.

Geo. C. Burgwin, Esq., appearing for plaintiffs and Geo. Shiras, Jr., for defendants; James Cochran, one of plaintiffs, also present; Harry Brown, Mr. Lamprey, and Mr. Taylor also present.

Adjourned by consent of counsel to Thursday, January 5,
48 1888, at 10 o'clock a. m.

JANUARY 5, 1888.

Met at 10 o'clock a. m.

Present: George Shiras, Jr., Esq.; Mr. Cochran, Mr. Taylor, Mr. Lamprey, Mr. McFadden.

Mr. Burgwin being absent, adjourned to meet January 19, 1888, at 10 o'clock a. m.

JAN. 19, 1888.

Met at 10 o'clock a. m.

Geo. C. Burgwin, Esq., and C. C. Dickey, Esq., present.

E. J. TAYLOR sworn and examined by Mr. BURGWIN:

I am a civil engineer and have been engaged in the business for about 13 years. I have given special attention to mining engineering as to the construction of coke plants. I know the location of the tracts of coal and surface land described in the bill in this case and have surveyed them. This plan (exhibit marked Jan'y 19, 1888, No. 1) was made by me, and shows the coal and the surface land. The distances and measurements marked in that plan are made from actual surveys made by me.

The Parkhill tract of coal, which lies west of the railroad, contains 86.3 acres of merchantable coal, and the coal — on the east side of the R. R., called the Hogsett and Wilson tract, contains 142.66 acres.

There is also adjoining this a tract of coal containing 2.65 acres of coal under the surface land on the east side of the railroad.

Adjoining the Hogsett and Wilson tract and lying on the east side of the railroad is 24.45 acres of surface, calculated to the
49 centre between the rails of the P., McK. & Y. railroad. On the west of the R. R. is 12.60 acres of surface.

The black lines, with courses and distances marked thereon, show the boundary lines of the several tracts of coal and surface described in the bill. The blue lines, with the courses and distances written thereon, show the line between the merchantable and unmerchantable coal and was run at an elevation of 25 feet above the top of the coal.

The line of greatest dip of this coal bears south 55 east, as marked on this map.

The bottom of the coal is about three feet (3 ft.) above the railroad at the extreme eastern side of the Parkhill tract, and the elevation of the bottom of the coal above the railroad, at the western side of the Parkhill tract, is about twenty feet (20 ft.).

At the common corner of the John Work, Joseph Hare, and Parkhill tracts the coal lies at a depth of about thirty feet (30 ft.) below the railroad.

The line of the bottom of the cropping of the coal in the surface land on the side of the R. R. is about on a level with the railroad track. The line on this diagram marked N. 35° E. strike of coal strata means the water level of the coal and is always at right angles with the line of greatest dip.

In my opinion as a civil and mining engineer and knowledge of mining of coal, this coal and surface can be divided into two parts without prejudice to or *psoiling* the whole.

In my opinion, the line of the P., McK. & Y. railroad should be the dividing line.

50 I think there is enough surface land on the east side of the railroad to operate that part of the coal and to convert it into coke successfully. On the west side there is sufficient surface for coke ovens, but not enough for houses.

On the Hogsett and Wilson tract the main entry should be driven from the surface land down on the line of greatest dip of the coal, and the coal brought to the surface by a slope and hauled by an engine and wire rope.

The pit mouth should be located at or about the point where a pit mouth is shown on the map on the east side of the railroad.

The best way to work the Parkhill tract would be to open it on the east side at the point marked B on the map. If opened at that point the mine would be self-draining and the greater portion of the coke in the Parkhill tract would be a down-hill haul. This Parkhill coal could be mined in another way—that is, it could be mined and taken out at the Nellis shaft, on the John Work farm, owned by Brown and Cochran, pl'f'*ts*, in this case.

Cross-examined by Mr. DICKEY:

If mined through the Nellis shaft the proper way to drain the Parkhill coal would be to drive a water-course through to the eastern outcrop of the coal on the surface land at or near Rainey's works.

In that case all the Parkhill coal would drain itself.

The Hogsett and Wilson tract would have to be drained by pumping the water out to the surface unless a water-course were driven all the way to the river, a long distance.

51 Mr. BURGWIN:

Question. Would the hoisting shaft and machinery, coke ovens, houses, and coke plant, known as the "Nellis mines," located on the John Work farm, adjoining the Parkhill tract, and owned by the

plaintiffs in this case, Brown & Cochran, be sufficient in appointment and capacity to mine the coal in the Parkhill tract, and to convert the same into coke advantageously?

Answer. Yes; with one exception as to the ovens, it might require a few more ovens if worked in connection with the Brown & Cochran coal; but they are sufficient to work the Parkhill tract alone. To work both the Brown & Cochran coal and the Parkhill coal at the same time would require a few more ovens, but if worked separately, not at same time, there are enough ovens.

Adjourned one week, to Thursday next, Jan'y 26th, at 10 a. m.

JANUARY 26, 1888.

Met at 10 o'clock a. m.

Present: Geo. C. Burgwin, Esq., and C. C. Dickey, Esq., Mr. Taylor, Mr. Cochran, Jr., Miss —— Wiley, selected by att'ys as short-hand reporter.

Josiah A. Strickler sworn. Examined by Mr. Burgwin. Cross-examined by Mr. Dickey. To Mr. Burgwin. To Mr. Dickey. (See reporter's copy.)

John S. Newmeyer, affirmed. Coke operator. Levi & Dawson. Examined by Mr. Burgwin and Mr. Dickey. (See reporter's copy.) Admitted by both counsel that the coal and
52 surface land which is the subject of this partition can be divided into two parts without prejudice to or spoiling the whole by placing in one purpart the Hogsett and Wilson tract, containing 142 acres and $\frac{66}{100}$, and the tract of coal to the west of the township road, containing 2.65 acres, together with a portion of the surface, and by placing in the other purpart the remainder of the surface and the Parkhill tract of coal, containing 86.31 acres, as shown upon the map (No. 1) in evidence.

Joseph H. Paddock affirmed. Civil and mining engineer. Examined by Mr. Burgwin and Mr. Dickey. See reporter's copy.

Adjourned by consent of counsel two weeks, to Feb'y 9th, at 10 a. m.

FEB'Y 9, 1888.

Met at 11¼ o'clock a. m.

George C. Burgwin and C. C. Dickey, Esqs., present; Mr. Lamphrey.

John McFadden affirmed. Examined by Geo. C. Burgwin, Esq., and Mr. Dickey. See reporter's copy.

George C. Marshall sworn. Examined by Mr. Burgwin and Mr. Dickey. See reporter's notes.

Wilson Rosser sworn. Examined by Mr. Burgwin, Fayette county.

Plaintiffs rest.

Adjourned to Thursday, Feb'y 16th, at 10 a. m.

FEB'Y 16, 1888.

Met at 10 o'clock a. m.

C. C. Dickey, Esq., and Geo. C. Burgwin, Esq., appear.

53 At request of Mr. Dickey and with consent of Mr. Burgwin, adjourned one week to Feb'y 23, at 10 a. m.

FEB'Y 23, 1888—10 o'clock a. m.

Adjourned one week, to March 1st, at 10 o'clock a. m., at request of Mr. Shiras, who is not ready to proceed, says Geo. C. Burgwin, Esq.

Plaintiffs rest.

MARCH 1, 1888.

Met at 10 a. m.

Geo. C. Burgwin and C. C. Dickey, Esqs., present; James Cochran, Mr. Lamphrey, Mr. Taylor.

James S. Devlin sworn on part of defendants. Examined by Mr. Dickey, se- reporter's notes, and examined by Mr. Burgwin.

Adjourned (at 11¾ a. m.) to March 8, at 10 a. m.

MARCH 8, 1888.

Met at 10 o'clock a. m.

James Cochran, Mr. Loughrey, and Mr. Taylor present.

Mr. Dickey engaged in court, and, at his request, adjourned one week, to March 15th, at 10 a. m.

Mr. Devlin also appeared.

MARCH 15, 1888.

Met at 10 o'clock a. m.

Continued to 2 o'clock p. m. same day, Mr. Dickey being engaged in court.

Same day, 2.45 p. m., met again.

Present: Mr. James Cochran, Mr. Taylor, and Mr. Devlin, Geo. C. Burgwin, Esq., and C. C. Dickey, Esq.

James S. Devlin recalled by Mr. Dickey, Examined by Mr. Dickey, see reporter's notes, and examined by Mr. Burgwin.

Adjourned at 3.45, one week, to March 22nd, at 10 a. m.

Statement of Mr. Devlin, witness, on paper, filed with the master.

54 MARCH 22ND, 1888.

Met at 10 a. m.

Geo. C. Burgwin, Esq., and Geo. Shiras, Jr., Esq., present; also James Cochran, Mr. Taylor, Mr. Loughrey.

Alexander J. Hill sworn on part of def'ts. Examined by Mr. Shiras, Mr. Burgwin, and Mr. Shiras. See reporter's notes.

Thomas Johns sworn on part of def'ts. Examined by Mr. Shiras and Mr. Burgwin. See reporter's notes.

Adjourned (at 11.40) to Thursday next, March 29th, at 10 a. m.

MARCH 29, 1888.

Met at 10 a. m.

Geo. Shiras, Jr., Esq., and Geo. C. Burgwin, Esq., present; also James Cochran, Mr. Taylor, and Mr. Loughrey.

Adjourned to 2 p. m. same day (witnesses not being present).

Same day met at 2 p. m., both counsel present, and adjourned by consent to April 16th, at 10 a. m.

APRIL 16, 1888.

Met at 10 a. m.

C. C. Dickey, Esq., and Geo. C. Burgwin, Esq., present; also James Cochran, Mr. Taylor, and Mr. Loughrey.

Mr. Dickey says his witnesses cannot attend to-day, and at his instance adjourned to Monday next, April 23rd, at 10 *p.* m.

APRIL 23, 1888.

Adjourned to April 24th, at 10 a. m.

APRIL 24, 1888.

Met at 10 a. m.

Geo. C. Burgwin, Esq., and C. C. Dickey, Esq., present; James Cochran, Harry Brown, and others present; Miss —— ——, reporter.

55 Julius C. Shipley sworn on part of defendants. Examined by Mr. Dickey and examined by Mr. Burgwin. See reporter's notes.

Frank R. Bradford sworn on part of def'ts. Examined by Mr. Dickey and Mr. Burgwin. See reporter's notes.

Julius C. Shipley recalled and examined by Mr. Burgwin.

Adjourned to Friday next, 27th inst., at 10 a. m.

APRIL 27, 1888.

Met at 10 a. m.

Mr. Burgwin and Mr. Dickey present; James Cochran and others present. Geo. C. Burgwin, Esq., and C. C. Dickey, Esq., agree to adjourn to next Tuesday, May 1, 1888, at 10 a. m., and the master now orders that defendants close their testimony on that day.

MAY 1, 1888.

Met at 10 a. m. and adjourn- to 2 p. m. same day.

MAY 1, 1888.

Met at 2 o'clock p. m.

Geo. C. Burgwin, Esq., and C. C. Dickey, Esq., present; James Cochran and Harry Brown and others present.

Arthur W. Bliss sworn on part of defendants. Examined by Mr. Dickey, Mr. Burgwin, and Mr. Dickey. See reporter's notes.

Frank R. Bradford recalled. Examined by Mr. Dickey and Mr. Burgwin. See reporter's notes.

Adjourned at 6 p. m. — to-morrow, May 2nd, at 10 a. m.

MAY 2, 1888.

Met at 10 o'clock a. m.

Geo. C. Burgwin, Esq., and C. C. Dickey, Esq., present.

56 Abraham Lash sworn on part of defendants. Examined by Mr. Dickey. See reporter's notes.

Julius C. Shipley recalled by Mr. Dickey and Mr. Burgwin.

Adjourned at noon to half past 1 p. m.

Mr. DICKEY: Def'ts offers deed from Alex. J. Hill to Robert Hogsett and others, dated ——, recorded in Fayette Co., Pa., for the purpose of showing the 10-acre tract of surface was purchased and conveyed with the Hogsett and Wilson coal.

Objected to by Mr. Burgwin as incompetent and irrelevant. Objection sustained, deeming it irrelevant.

Mr. Dickey also offers deed *for* Robert Hogsett and wife and others to Shoenberger, defendant, dated Nov. 11, 1871, recorded in Fayette Co., Pa., vol. 24, page 324, for the Hogsett and Wilson coal and surface of the 10-acre piece, for the purpose of showing the area of coal.

Objected to as incompetent and irrelevant by Mr. Burgwin. Objection overruled.

For this deed see the bill in this case.

Defendants' counsel rests.

Adjourned to next Tuesday, May 8th, at 10 a. m.

MAY 8, 1888.

Met at 10 o'clock a. m.

Geo. C. Burgwin, Esq., and Mr. Dickey.

John C. Core sworn on part plaintiff. Examined by Mr. Burgwin and Mr. Dickey. See reporter's notes.

E. J. Taylor recalled by Mr. Burgwin and examined by him.

57 Map offered, marked May 8, 1888, No. 1 Exhibit, and examined by Mr. Dickey.

At 1 p. m. took a recess until 2 p. m.

2 P. M.

Met again.

John Jones sworn and examined by Mr. Geo. Burgwin, Esq., and by Mr. Dickey.

Wilson Rosser recalled and examined by Mr. Burgwin and Mr. Dickey.

John McFadden recalled and examined by Mr. Burgwin and Mr. Dickey.

Adjourned to May 15, at 10 a. m.

MAY 15, 1888.

Met at 11 o'clock.

Geo. C. Burgwin, Esq., present.

Defendants' counsel not appearing, adjourned (at request of Mr. Shiras to Mr. Burgwin) to 2 p. m. to-day.

Same day, 11½ o'clock, Mr. Dickey apppeared, and, being engaged in the U. S. C. court, by consent of counsel adjourned for one week, to May 22, at 10 o'clock.

MAY 22, 1888.

Neither party appearing, adjourned to Thursday next, May 24th, at 10 o'clock a. m. (by consent of counsel).

MAY 24, 1888.

Met at 10 a. m.

Geo. C. Burgwin, Esq., and C. C. Dickey, Esq., present.

Robert L. Martin sworn on part of plaintiffs. Examined by Mr. Burgwin, Mr. Dickey, and Mr. Burgwin. See reporter's notes.

Wesley H. Cotton sworn on part of plaintiff-. Examined by Mr. Burgwin and Mr. Dickey.

58 Thomas Adams sworn on part of plaintiff-. Examined by Mr. Burgwin and Mr. Dickey.

J. S. Newmeyer recalled. Examined by Mr. Burgwin and Mr. Dickey.

Adjourned to Tuesday next, May 29th, at 10 a. m.

MAY 29, 1888.

Met at 10 o'clock a. m.

Geo. C. Burgwin and Geo. Shiras, Esq., present; James Cochran and Mr. Taylor and others present.

John K. Taggart sworn on part of pl't'ffs. Examined by Mr. Burgwin, Mr. Shiras, and Mr. Burgwin. See reporter's notes.

Joseph L. Robbins sworn on part of pl'ffs. Examined by Mr. Burgwin and Mr. Shiras. See reporter's notes.

Adjourned at half past 11 a. m. to Tuesday next, June 5, at 10 a. m.

JUNE 5, 1888.

Met at 10 a. m.

Geo. C. Burgwin, Esq., and C. C. Dickey, Esq., present.

Admitted by counsel that the plaintiffs in this case are the owners of an adjoining tract of coal containing about 140 acres, being the coal under the John Work farm, adjoining the Parkhill tract on the westward.

Also admitted by counsel that the plaintiffs, by virtue of such ownership, are entitled to have allotted to them in severalty the Parkhill tract of coal and a portion of the surface at a proper valuation.

59 James Cochran sworn on part of plaintiffs. Examined by Mr. Burgwin, Mr. Dickey. See reporter's notes.

Plaintiffs close their evidence.

Adjourned to Tuesday next, June 12th, at 10 o'clock a. m.

JUNE 12, 1888.

Met at 10 o'clock a. m.

George C. Burgwin, Esq., and George Shiras, Jr., Esq., present; James Cochran, Sam'l S. Brown, and others; Marshall H. Reno, short-hand reporter.

Charles Donnelly sworn on part of defendants. Examined by Geo. Shiras, Jr., Esq. See reporter's notes. Objection by Mr. Burgwin. Testimony taken subject to the exception. Examined by Mr. Burgwin.

H. C. Frick sworn on part of defendants. Examined by Geo. Shiras, Jr., Esq. See reporter's notes. Objected to by Mr. Burgwin

as above. Testimony taken subject to this exception. Examined by Mr. Burgwin.

Defendants close their evidence.

Adjourned to Tuesday, June 19th, at 10 o'clock a. m.

JUNE 19, 1888.

Met at 10 o'clock.

Mr. Shiras and Mr. Dickey appear for def'ts; Geo. C. Burgwin, appears for pl'ffs.

James M. Schoonmaker sworn on part of pl'ffs. Examined by Mr. Burgwin and Geo. Shiras, Jr., Esq. See reporter's notes.

Argued by Geo. Shiras, Jr., Esq., on part of defendants, as he wishes to leave the city before the next meeting, by consent.

60 Adjourned by consent to Tuesday next, June 26th, at 10 o'clock a. m.

JUNE 26, 1888.

Mr. Dickey being absent, by consent of pl'ffs' counsel adjourned to July 3, at 10 a. m.

JULY 3, 1888.

Met at 10 a. m.

Geo. C. Burgwin, Esq., James Cochran present; Miss Wiley, reporter, present.

John McFadden recalled. Examined by Mr. Burgwin. Objection by Mr. Dickey. See reporter's notes and motion by Mr. Dickey to strike it out. Examined by Mr. Dickey.

E. J. Taylor recalled. Examined by Mr. Burgwin. Objection by Mr. Dickey, and motion to strike out as before. See reporter's notes.

Mr. Burgwin now offers the master's report and decree of the court in No. 48, Nov. term, 1886, between same parties, as evidence of the relative value of pump coal and drain coal and as evidence of the relative value of the two kinds of coal as claimed by the defendants in that case, why are the defendants in this case, by way of estoppel as against these defendants.

Objected to by Mr. Dickey as incompetent and irrelevant.

Evidence closed on both sides.

Adjourned to Tuesday next, July 10th, at 10 a. m.

JULY 10, 1888.

Adjourned by consent of counsel to July 19th, at 3 p. m.

JULY 19, 1888.

No one appearing, adjourned to July 26th, at 10 a. m.

61 JULY 26, 1888.

Argued by C. C. Dickey, Esq., for defendants, and by Geo. C. Burgwin, Esq., for plaintiffs, and hearing closed.

SEPT. 10, 1888.

Master's report made out and copy thereof given to counsel of both parties.

SEPT. 21, 1888.

Exceptions filed on part of defendants.

OCTOBER 10, 1888.

Exceptions overruled for reasons appearing in the report.

C. HASBROUCK, *Master.*

Filed Oct. 11, 1888.

H. D. GAMBLE, *Clerk.*

Evidence Taken Before C. Hasbrouck, Master.

SAMUEL S. BROWN *et al.* *vs.* JOHN H. SHOENBERGER *et al.* } No. 18. November Term, 1887. In Equity.

JANUARY 26, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; C. C. Dickey, Esq., counsel for defendant-, and G. C. Burgwin, Esq., counsel for plaintiff-.

JOSIAH STRICKLER, being duly sworn according to law, deposes as follows:

Q. Where do you live, Mr. Strickler?

A. I reside at Mount Pleasant, Westmoreland county, at present.

62 Q. Are you familiar with the land which is now the subject of partition, lying on the Dickerson Run branch of the P., McK. and Y. R. R., of which the plan made by Mr. Taylor is in evidence?

A. Well, I say yes. I don't know the property lines and can't trace them, but I know the two pieces of land and their frontage particularly.

Q. You know the way the coal lies, the way it dips, and the proper way of operating the two tracts of coal?

A. I do.

Q. What has been your business, Mr. Strickler?

A. I have been in the coke business for fifteen years or more.

Q. Whereabouts?

A. In Connellsville and that region, and Broad Ford to Mount Pleasant.

Q. In your opinion, would it injure the value of this tract of coal, the Parkhil- tract and the Hogsett and Wilson tract, to divide it; you know they would be operated separately if the same person that operated both tracts would operate separately?

A. No, sir.

Q. What would be the proper way, in your opinion, to divide

these tracts of coal, together with the surface that lies between them?

A. They are divided by the railroad, I think, as properly as they could be divided.

Q. Have you knowledge of the value of coal in this region and in this neighborhood?

A. A kind of an idea based on sales of coal that have been made here and adjoining country.

Q. With the knowledge that the Hogsett and Wilson tract
63 is pump coal and the Parkhill tract is all or nearly all self-draining coal, and with the respective situations of the two tracts otherwise as to crop line, what, in your opinion, is the relative value of these two pieces of coal per acre?

A. The large tract would be considered about $400 coal in the country where it is, I should think, and the other perhaps $450 or $75.

Q. Have you knowledge of the value of surface land as appurtenant to tracts of coal for operating purposes?

A. Well, I have myself purchased coal for operating purposes and have known land sold for that purpose.

Q. What, in your opinion, is the value of the surface land which adjoins these tracts of coal per acre?

A. Well, in one case $175 per acre and in the other I paid myself $200 an acre.

Q. At what value would — put this coal or this tract of surface land, what is the fair market value?

A. I should say they ought to be worth $200 per acre.

Cross-examined by Mr. DICKEY:

Q. I will ask you a question which you need not answer till Mr. Burgwim has had time to object. Suppose that in the deed for the larger tract of coal, the pump coal, these was a reservation providing that the party mining the coal should support the surface and there was not in the other, would that make any difference in the values?

Objected to as incompetent and irrelevant.

Question withdrawn for the present.

Q. Mr. Strickler, what difference would there be in the expense of mining where you have a tract down hill, which would
64 drain itself; what would be the difference in the expense of mining?

A. That would be altogether owing to the rapidity with which you would operate.

Q. Well, will you state what items of expense there would be in pumping coal which had to be hoisted and coal which would drain itself? State to the master what items of expense there would be.

A. There would be no difference in expense, except the matter of pumping.

Q. There would be no expense of hoisting in this case?

A. It would be done by means of a rope. We do that in place of mules.

Q. Well, Mr. Taylor has shown here that the Hogsett tract would be mined out upon the surface there by the railroad. Would there not be more expense in getting coal out if it had to be hauled up an incline than upon a slope?

A. Yes; there would be some more expense, of course.

Q. Is it not a fact, Mr. Strickler, that in pumping coal or hoisting coal men have to — kept at the mine all the time, whether the mines are being operated or not?

A. Yes, sir.

Q. Steam has to be kept up?

A. It requires steam to pump.

Q. With drifting coal no men would be required there, would there?

A. Not for that purpose.

Q. Nothing beyond a watchman, would there?

A. No, sir.

65 Q. How, Mr. Strickler, do you fix the value of the two pieces of coal at $450 or $475?

A. I should have said that the difference would be $100. I fixed that simply because that is the difference that is made in the region.

Q. Do you know of sales by which you fix these values?

A. Yes, sir. I have bought for myself.

Q. Within what time?

A. Oh, some date back eight or ten years and some three or four years and some, in fact, within the last year.

Redirect:

Q. Mr. Strickler, you have said that you have had fifteen years' knowledge of the operation of coke plants. Is there any difference in the quality of coke manufactured from pump coal and from self-draining coal?

A. I cannot say as to quality. I don't know that it is any better or that it is not. I know that the pump coal produces the heavier coke.

Q. You get a greater tonnage for your coal?

A. I cannot give it to you exactly, simply the little experience that I had with some dip coal. The quality is the same, so far as I know, except that it is heavier.

Q. A little better for the operator?

A. Yes, sir; it may be for the man who uses it, but I don't know that.

Recross-examined:

Q. Are you able to state the average expense per ton of hoisting coal up a distance of 80 or 100 feet?

A. I cannot answer that question.

66 JOHN S. NEWMEYER, being duly sworn according to law, deposes as follows:

Q. Where do you live, Mr. Newmeyer?
A. Dawson.
Q. What is your business?
A. Coke operator.
Q. Where do you operate?
A. On the Hickman Run branch of the B. & O. R. R.
Q. How long have you been in business?
A. About eight or ten years.
Q. Do you know the coal and surface land which is the subject of partition in this case, which is on the map in evidence?
A. Yes, sir; I was over the property.
Q. You have examined it with a view to testifying in the case upon values?
A. Yes, sir; I did.
Q. Do you know the way the coal dips—the way it lies—and have considered the proper method of operating the two tracts?
A. Yes, sir.
Q. Have you any knowledge of the value of coal land in this neighborhood?
A. Yes; to some extent I have. I do not know of any sales being made lately.
Q. I wish you would state what you believe to be the value of these two tracts of coal land per acre.
A. I place the 142 tract at $400 an acre.
Q. At what do you place the 86-acre tract?
A. At $450.

67 Q. What do you take into consideration in fixing these values relatively?

A. Well, the dip coal is well located, I think, for operating; you can easily get at this in one or two ways. The best, I think, would be to run a slope to the lowest point and then the coal will be all drained at that one place; then you could haul your coal down grade and pull out by ropes, which I think is as cheap as mule power.

Q. Does the extensive crop line of the smaller tract make a difference?

A. The large tract is joined up to coal almost all around and the other piece is crop nearly the whole way round, especially on the west side. On the northwest side, where you can't work out, you might work 25 feet crop line; in either place you might not get good coal for 35 feet.

Q. Do you also take into consideration in making your estimate of the relative values of the two tracts of coal the kind of coke which would be manufactured from the pump coal and the self-draining coal respectively?

A. Well, I think the dip coal, while I don't know that one kind would give more success in a furnace and be worth more—the dip

coal would make heavier coke on account of being wet coal, and the other, being lighter coal, would not make quite as heavy coke.

Q. Can you tell us the percentage on the tonnage per acre for the two kinds of coal?

A. No, sir; I have no experience in it (in regard to any kind). An acre of pump coal will make a larger tonnage of coke than an acre of self-draining coal; just what the percentage is I can't say, but it makes a difference in the value which an operator
68 will put upon the two tracts of coal when he is about to purchase.

Cross-examined by Mr. DICKEY:

Q. Where are you engaged in business, Mr. Newmeyer?

A. Well, our works are located on the Hickman Run branch of the B. & O. R. R.

Q. Well, is that drifting or pumping coal?

A. Drifting, self-draining coal.

Q. Have you ever been engaged where the coal had to be hoisted or pumped?

A. No, sir.

Q. Are you able to state, Mr. Newmeyer, what the cost per ton would be of hoisting coal either up a shaft or slope a distance of 80 or 100 feet?

A. No, sir; but I think it would be very little if the slope was on a straight line, and a stationary engine, with a rope to draw up the coal; I think it would be very little.

Q. You have had experience?

A. No, sir; the mines that are below us—J. M. Schoonmaker's—draw their coal out in the same way.

It is admitted by counsel on both sides that the coal and surface land which is the subject of partition can be divided without prejudice to or spoiling the whole by placing in one purpart the Hogsett and Wilson tract, containing 142.86 acres, and the tract of coal to the west of the township road, containing 2.85 acres of coal, together with a portion of the surface, and by placing in the other purpart the remainder of the surface and the Parkhill tract of coal,
69 containing 86.30 acres of coal, as shown upon the map Exhibit No. 1 in evidence.

Q. Mr. Newmeyer, have you any knowledge of the value of surface land adjoining the coal tracts for coking purposes?

A. You very often have to pay just what you can buy it for.

Q. Have you sufficient knowledge of the prices that are paid in that region for tracts similar to the tracts on the map in evidence?

A. I think $200 fair value.

Mr. JOSEPH H. PADDOCK, being duly sworn according to law, deposes as follows:

Q. What is your business, Mr. Paddock?

A. Engineer—civil and mining engineer.

Q. Where were you engaged in business?

A. I am engaged for the H. C. Fricke Coke Company and live in Connellsville.

Q. How far is that from this coal, which is the subject of partition?

A. About five miles.

Q. Are you familiar with the Hogsett and Wilson tract and the Parkhill tract of coal, which are the subject of partition in this case?

A. I am familiar with the tracts.

Q. I believe you are located on the Dickerson Run branch of the P., McK. & Y. R. R?

A. I am.

Q. Do you know the way these two tracts of coal lie, the way they dip, and the respective amount of crop which they have? Do you know the values of such coal tracts in that region sufficiently
70 to tell us the respective values of the Parkhill tract and the Hogsett and Wilson tract of coal?

A. I know the lay of the coal there of both of the tracts and the values of such tracts from sales made in the coke region.

Q. What is the value of these two tracts?

A. I would consider the Parkhill tract as being more valuable than the Hogsett and Wilson per acre of the Parkhill coal was all coal—that is, if there was no crop. I believe it to be worth $100 more an acre than the Hogsett and Wilson, but the fact of its having considerable crop and not being able to determine until after you have mined how much crop you would have would make that difference less. If I were buying it and taking the crop coal into consideration I would not make the difference more than $50 or $60.

Q. Do you take into consideration, also, the relative areas of the two tracts?

A. That would affect it considerably; of course, the larger plant you can work more profitably.

Q. Do you take into consideration the weight of coke manufactured from a certain area of pump coal and self-draining coal in forming these values?

A. Yes, sir; there is a slight difference, dependant on the amount of surface. Where you have heavy hills the coal is more compact and you get a greater tonnage of coke in weight from the same amount of coal than you would where the surface is light.

Q. Can you tell us what that percentage is, approximately?

A. I think it might run to ½c. upon the values of a ton of coke. You would run about 8,000 tons of coke to an acre, being well
71 mined, which might make a difference of $40 in value per acre of coke mined from shaft and from crop coal.

Q. In fixing the difference in values upon the Hogsett and Wilson and the Parkhill tracts from $50 to $60 you have taken this element into consideration?

A. Yes, sir.

Cross-examined by Mr. DICKEY:

Q. The amount of hill over these two pieces is about the same in each case, is it not?

A. On parts of it only.

Q. The average is about the same?

A. I wouldn't like to say that it was.

Q. Do you think there is nothing more to make any difference in the quality of the coal?

A. Yes, sir; I do.

Q. Mr. Paddock, in regard to the Parkhill tract, assuming a crop line to be a line of 25 feet perpendicular above the outcropping of the coal, would not all the coal in that crop line be good coal?

A. Something you can't tell, sir.

Q. Are not the probabilities that it would be?

A. It is probable that it would be.

Q. Twenty-five feet perpendicular would be regarded as a safe crop line, would it not?

A. That depends greatly upon the character and lay of the coal. You would find that the coal—that is, the good coal—would lay closer on swampy ground than it would on the hill side. You find that on swampy ground you can mine almost up to the limit, and although the coal might be good in a place like the Park-
72 hill tract—that is, up-hill coal—it would be what we call red coal, and we would have to stop.

Q. Have you been engaged in mining yourself?

A. As a mining engineer, yes, sir.

Q. Have you ever operated mines yourself?

A. I have charge of the operation of a mine.

Q. How long since?

A. The last four years—three or four.

Q. Where you are engaged at present are the mines drift mines or hoisting?

A. We have plenty of all kinds—slopes, shafts, and drifts.

Q. Can you state the average cost per ton of hoisting a distance of 80 or 100 feet, bringing it to the surface, either by shaft or mule power?

A. I can't state that, sir; it is so different for different places; where the mine was a drift mine, with a down-hill slope, there would be practically no cost in bringing the coal to daylight.

Q. Do you know of any sales by which you fix these values?

A. I know of a number of sales that have taken place around the region; I know of a sale about six weeks past of a tract that lay very similar to this Parkhill tract, or, rather, lay more like the Hogsett and Wilson tract; it brought about $400 an acre, and some surface included in the purchase lying on the railroad and draining to one point.

Q. That was self-draining coal?

A. No; that was drained to one point similar to the Wilson tract.

Q. Did it require to be pumped?

A. Yes, sir.

Q. What sale was that?

73 A. McClure & Company from the Boyd heirs.

Q. Do you know of any sales of drifting coal by which you form your judgment, of recent date?

A. I can't place any just now.

Adjourned to meet Thursday, February 9, 1888, at ten o'clock a. m., at same place.

SAMUEL S. BROWN *et al.* *vs.* JOHN H. SHOENBERGER *et al.* } No. 18. November Term, '87. In Equity.

FEBRUARY 9, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; C. C. Dickey, Esq., counsel for defendant-, and G. C. Burgwin, Esq., counself for plaintiff-.

JOHN MCFADDEN, being duly sworn according to law, deposes as follows:

Q. What is your business, Mr. McFadden?

A. I have been in charge of coke works for 15 years or more.

Q. What coke works?

A. First with the Connellsville Gas Coal Company; then with the Cambria Iron Co. for 13 years; now with the Hostetter Coke Co.

Q. You have experience, then, in the mining of coal and the coking of it?

A. I have.

Q. Have you operated pump coal and drift coal, both?

A. Yes, sir.

Q. Do you know the two tracts of coal and surface land

74 which are the subject of partition in this case, marked on the map as the Parkhill tract and the Hogsett and Wilson tract?

A. I do.

Q. Have you made an examination of these two portions of coal and surface land with a view of testifying as to the relative values and the actual values?

A. Yes, sir; I have gone over this land with a view to testifying in this case.

Q. Are you familiar with the values of coal in this regoin?

A. Yes, sir—that is, from sales that have been made, prices paid for coal.

Q. What are the respective characters of these two pieces of coal, as to pumpage and drainage?

A. This—that is, the Hogsett and Wilson tract—would have to be pumped, most of it lying under water level. This other would drain itself. Of course there is a small portion that would not drain itself, but not a great portion.

Q. What, in your opinion, with your knowledge, is the value of the Hogsett and Wilson tract per acre?

A. Well, taking the prices paid in and around that section, $350 would be a good price for it.

Q. What would be, on that basis, the price or value of the Parkhill tract?

A. $400 an acre.

Q. What is, in your opinion, the value of the surface land lying between the two tracts?

A. Well, taking the location of the surface there for building a small plant, it looks specially suited for the working of these two tracts. That land, I suppose, would be worth about $200
75 an acre. Farming lands through the district average from $80 to $100, but taking it there for that it ought to be worth about $200.

Q. Do you think that if offered for sale in connection with either one of these coal tracts it would bring that?

A. Yes, sir; I do if the coal was going with it.

Q. What, in your opinion, is the proper way to divide the surface land so as to allot a portion of it to the Hogsett and Wilson tract and the remainder to the Parkhill tract?

A. I think that the railroad should be the dividing line of that, as the surface lying on this side I don't see where it would be of much value to the persons mining that, nor the surface on that side to the persons mining this. Of course this looks like a long shaft, but you need places for houses if you build a coke plant. You need plenty of room. Both pieces of land are very nicely located, taking the track as a dividing line.

Q. Would there by that division be enough surface allotted to each tract for the operation?

A. I think there would be.

Q. What would it require of each piece for each tract of coal?

A. Well, if I was purchasing either of the two tracts I would want all the surface that is on either side of the road.

Q. The Hogsett and Wilson tract requires all the surface that lies between it and the railway, and the Parkhill tract requires all surface that lies between it and the railway?

A. Yes, sir; I think it would be advantageous to have it.

Q. Then that would be the only proper way to make a division?

A. Yes, sir.

76 Cross-examined by Mr. DICKEY:

Q. Don't you think there would be more difference than $50 per acre between drifting coal and pumping coal?

A. No, sir; that is the advantage that you have in pumping coal you haven't in self-draining coal. Pumping coal lying below the water level we have demonstrated in a number of years' experience in making coke that the yield is greater than from coke lying above water level. Of course if the tracts were larger and not so much danger here in this part of the tract you might make more difference, but the hill here, talking of the Parkhill tract—the hill does not rise abrupt, but slopes off, and there may be a great deal of rust coal; there is danger of that.

Q. Suppose that the coal was equally good in the two tracts, how much difference would there be between self-draining coal and pumping coal?

A. If the two pieces of coal were such as would give you a life of 25 to 30 years to the plant you could make that difference fully $100.

Q. Well, why would you make less difference than that when there is not 25 years' life?

A. For the simple reason that your improvements are of no value to you when your coal is worked out.

Q. Well, wouldn't that apply equally to both kinds of coal?

A. Yes, sir; it ap-lies equally to both kinds of coal, but coal under water level being worth more on a percentage than the other would recompense you for the great many advantages you have in the other.

77 Q. Do you base these figures upon the selling price of the coal per acre in the ground or upon your estimate of the product of the two pieces of coal when mined?

A. The percentage is based on the actual amount of commercial coal and coke taken out—that is, coal mined and coke put upon the market.

Q. That is what you are basing your estimate upon?

A. It is.

Redirect:

Q. You base your value upon the coal in the ground and upon your knowledge of what can be done with it?

A. Yes, sir; coal that we could make use of.

Recross-examined:

Q. Did you examine the surface land with a view to the proper location of the ovens and the other parts of the plant necessary to the working of these two tracts of coal—that is, economically from the start?

A. Yes, sir.

Q. Where would you make your location?

A. Well, working on the surface that they own at present and the location of the tracts, there would be one right here about, and the other would have to come in here. The expense of putting this coal into the ovens would be about equal. The coal lies very flat; it would be as low from the top of the ovens on this side as it would be from the ovens filled here.

Q. Where would you locate the side tract for the Parkhill tract?

78 A. Well, the side track has to be located in front of the ovens. Now, in locating for the Parkhill tract you would have to cross this line of Rainey's. This switch of Rainey's is on the surface belonging to the Parkhill tract. I would locate it right around in here. It would be necessary to cross Rainey's switch and go in front of Rainey's ovens to locate your side track properly.

Q. How much side track do you need for a plant of the size that it would be necessary to work this Parkhill tract?

A. Well, it would be necessary to have not less than 1,200 to 1,300 feet—that is, if you were operating about 80 ovens.

Mr. GEORGE C. MARSHALL, being duly sworn and examined, deposes as follows:

Q. Where do you live, Mr. Marshall?

A. Uniontown.

Q. What is your business?

A. I am in the coke business, the iron business, and the fire-brick business.

Q. About how long have you been engaged in the coke business?

A. Since 1873.

Q. You mine the coal and burn the coke?

A. Yes, sir.

Q. Have you had experience in operating drift coal as well as pumping coal?

A. Yes, sir; some of our mines are drift and some are below water level.

Q. Have you made an examination of the tracts of coal and surface land which we are about to divide in this case, known as the Parkhill tract and the Hogsett and Wilson tract?

A. Yes, sir; I have been over the ground several times and having my attention called to it with a view to the division of this property.

79 Q. Have you knowledge of the sales and of the values of coal territory and surface land in the region?

A. Yes, sir.

Q. I wish you would state what you believe, with your knowledge of the sales of land, to be the price or market value of the Hogsett and Wilson tract.

A. I would take the two tracts together, one $350 and the other $400. It is difficult to establish or fix a market value; I wouldn't put it over that.

Q. Which do you fix at $400 and which at $350?

A. Well, I would take the coal on this side—the Hogsett and Wilson tract—at $350 and the Parkhill at $400 an acre.

Q. What do you take into account in making your estimate of these relative values?

A. Well, I make it more from just mere prejudice against the water-level coal as against the drainage coal. Really I would say that that was the difference. The difference would be so trifling that it would be hard to arrive at it. If you would take a number of experienced cokemen I have very serious doubts whether you could get them nearer than half and half; it depends upon the location. I take into consideration, besides the fact that one is drift coal and the other pump coal, that in a cubic foot of pump coal you get a greater weight of coke than from drift coal.

Cross-examined by Mr. DICKEY:

Q. Would there not be certain fixed expenses about the pump coal which the self-draining coal would not have?

A. Certainly there would.

Q. What would these expenses be?

80 A. They are never fixed in drain coal; if you put a shaft down that expense is ended right there.

Q. Well, now, what expense would there be in operating?

A. Well, that is what I would call the expense.

Q. Would there not be expenses in the way of men running the engines which would have to be kept there and which wouldn't exist in a mine of draining coal?

A. The difference is very trifling.

Q. Well, isn't there quite a difference in the expense of hoisting coal and drawing it up a slope?

A. No, because you have the difficulty to overcome if you take it out by horse-power; it it cheaper than horse-power; you have to be constantly increasing your horse-power, while your steam once started for good and you don't ever increase at all.

Q. Mr. Marshall, do you think that the expense of operating a pump mine would be greater than of operating a drift mine by the amount it costs to raise the coal to the surface?

A. That difference is compensated by the difference in the quality and weight of the coke you get from the cubic foot of coal; that has been the experience of shaft-mining, that the weight more than compensates for the difference. It is a fact; it has been demonstrated by years of experience.

Redirect.

Q. In regard to the surface, Mr. Marshall, what is its value as appurtenane to the tracts of coal?

A. Of course, there is a certain amount of surface to every tract of coal; just what it would be worth I do not know.

Q. What is the amount of surface necessary for the operation of the two tracts of coal the size of these here?

81 A. Taking out your plant location, of course all the surface you would require would be just enough to accommodate your workmen.

Q. Well, taking into account the plant and everything necessary to the operation.

A. I think 25 or 30 acres for each tract of coal. I would not want any more; you might find others that would want the whole 1,400 feet for siding room; I consider the minimum for siding with about 50% for what we call stock room added.

Q. Well, in your opinion, then, all of the surface is needed for the two tracts of coal?

A. You would want every bit of that.

Q. Well, with that opinion, what is the value of the surface per acre?

A. I think $200.

Recross-examined:

Q. Is there sufficient room in the Hogsett and Wilson tract to justify putting down a shaft?

A. Yes, sir.

Q. What, about, would be the expense of putting down a shaft and getting ready to operate?

A. That is a question that I cannot answer, because that would depend upon the character of the ground.

Q. Can you give us any idea of the expense?

A. I cannot; it is something you can't say.

Q. It depends upon the shaft?

A. It depends altogether upon the depth of the coal and character of the ground.

WILSON ROSSER, being duly sworn and examined, deposes as follows:

Q. Where do you reside, Mr. Rosser?

82 A. I reside in Fayette county, 2½ miles from Dawson.

Q. What is your occupation?

A. I am superintendent of the Schoonmaker coke works.

Q. How long have you been engaged in the coke business?

A. In the coke business eight years on the first of next April, and in the coal business all my life.

Q. You have a knowledge of the proper methods of mining drift coal and pump coal, and the relative values of the pump coal and the drift coal?

A. I have; yes sir.

Q. Do you know the tracts of coal land which are about to be divided in this case?

A. Yes, sir.

Q. Do you know the values of coal in this neighborhood from sales made?

A. Well, no; I don't—that is, from coal right around here.

Q. I mean in this region similiarly situated.

A. Well, we have bought coal within two miles of that.

Q. Same kind of coal similiarly situated?

A. Yes, sir.

Q. Have you sufficient knowledge of the values of coal in that region to say what is the value of these two tracts of coal separately?

A. I have, in my opinion.

Q. You have examined these two tracts of coal with reference to the proper method of mining and operating them as coke plants?

A. Yes, sir.

Q. What, in your opinion, is the value of the Hogsett and Wilson tract per acre?

83 A. Well, I would say that that tract of coal is worth $300 an acre.

Q. And what, in your opinion, is the value of the Parkhill tract an acre?

A. Well, I would put that at $375 an acre.

Q. Do you know the value of surface land in this neighborhood as appurtenant to coke plants?

A. Well, no, sir; I do not know exactly of any sales being made, it is generally that the surface goes with the coal; around there it has been sold al- together, no separate valuation being put upon the surface.

Q. With the examination made of the ground and with your knowledge of the method of operating coke plants, what, in your opinion, is the proper method of dividing the surface land which lies between the two tracts of coal so as to give a proper amount to the separate tracts?

A. Sir; I think the railroad; it could be divided no nicer.

Q. Where would you locate the pit mouth for the Hogsett and Wilson tract?

A. Near the souther-most part of the line of the surface.

Q. Where would you locate the pit mouth for the Parkhill tract?

A. At the point marked "B" on the map.

Q. Where would be the proper place to locate the ovens on the Parkhill tract?

A. Locate the ovens at the point marked "C" on the map, running down past the pit mouth.

Q. Make the pit mouth at the centre of the ovens?

A. Yes, sir.

84 Q. What number of ovens would be requisite to run the coke plant economically and properly out of the Parkhill coal?

A. Well, I would say 75 or 80; it would be large enough for a tract of that size.

Q. What amount of track room would — need with that number of ovens to operate the works economically and properly?

A. I should say we ought to have 600 or 700 feet at the upper end of the ovens and room for two days' cars. You ought to have switch room to work on.

Q. Would — need any other switch room?

A. You would need switch room at the lower end of your ovens.

Q. For that size plant how much would you need?

A. About three hundred or four hundred feet; in the neighborhood of 1,000 feet, and generally 1,000 feet for ovens.

Q. Then you would need altogether a length of track for switch room of 2,100 feet and upwards?

A. Yes, sir.

Adjourned to meet February 16, at 10 o'clock a. m., at same place.

SAMUEL S. BROWN *et al.* *vs.* JOHN H. SHOENBERGER *et al.* } No. 18. November Term, 1887. In Equity.

FEBRUARY 16.

Parties met and adjourned to meet February 23, at same place and time.

FEBRUARY 23.

Parties met and adjourned to meet March 1st, at same place and time.

MARCH 1ST.

Parties met.

85 Present: C. Hasbrouck, master; C. C. Dickey, Esq., counsel for defendant-; G. C. Burgwin, Esq., counsel for plaintiff-.

Mr. JAMES S. DEVLIN, being duly sworn according to law, testified in behalf of defendant- as follows:

Q. Where do you reside, Mr. Devlin?

A. In the city of Pittsburgh.

Q. What is your profession?

A. Civil and mining engineer.

Q. How long have you been engaged in that profession?

A. As a civil and mining engineer since 1852.

Q. In your experience as a mining engineer have you had occasion to be concerned with coke properties in the Connellsville coke region?

A. Yes, sir.

Q. What experience have you had?

A. When I went to the coke region in 1862 I then located the works of the Pittsburgh and Connellsville Gas Coal Company; afterwards I went there, in 1869, and located the Summitt mines and branch railroads for Morgan & Company, and I went there in 1879, and have continued there continuously until a year ago.

Q. Are you familiar with the coal properties in the neighborhood of Dickerson run, Fayette county?

A. Yes, sir.

Q. Have you made surveys and examined prices in that region?

A. I made a survey for the P., McK. & Y. R. R.

Q. I believe there is a difference in values between coal properties where the coal can be taken out by the drift and where it can be pumped and the coal hoisted?

A. Yes, sir.

86 Q. Mr. Devlin, in this case there are two tracts of coal, one containing 86.30 acres, which is self-draining coal and can be worked by the drift on a level; the other piece containing 142.66 acres, which lies below the water level, and will require to be pumped and the coal hoisted an average hoist of about 80 to 100 feet either by shaft or slope. Would there be any difference in the value of the property, acre for acre?

A. Yes, sir.

Q. In your judgment how much difference would there be, acre for acre, in the value of these two tracts of coal?

A. From $250 to $300 an acre.

Q. Will you please state to the master what elements of difference there are and upon what you base this opinion?

A. I made a memorandum yesterday evening, and have it in full. A hoisting shaft 100 feet deep would cost for its sinking $4,000.

The mining laws of Pennsylvania require that where a hoisting shaft is sunk an air shaft shall also be sunk. The air shaft, with stairs, costs $3,000; the pump for the shaft, $2,000; the frame for hoisting shaft, $2,000; engine, cages, sheaves, etc., complete, $3,500; engine and boiler houses, $1,500; for chimneys and drain, $750; four tubular boilers, each 15 feet long, $2,000; draining pump, $1,000, making the total cost of the plant $19,750. Now, for operating the shaft, hoisting the coal requires an engineer for 250 days. The estimate for that time may be more or less, longer or shorter; 250 days at $2.50 a day, $625. I mean that that is the number of days they work in each year. Two men handling the coal at the bottom of the shaft, called cagers, for 250 days at $1.75 a day, $875,

87 and two men handling the coal at the top of the shaft 250 days at $1.75 a day, $875, and one pumpman, who would have to work every day 365 days at $1.75 a day, $638.75, making the total expense of operating the plant $3,013.75. If a plant of 250 ovens were built they would consume during the year 12 acres of coal, which would make the increased cost of the coal $250 an acre—that is, exclusive of the plant. If you take the plant itself it would increase it about $90 an acre—increase the cost.

Q. $90 an acre would be in addition to the $250?

A. It would be in addition to the $250.

Q. I will ask you whether the expense you have testified to are fixed and necessary in operating the shafting coal.

A. They are necessary.

Q. Do I understand you that if the works are started, would part of this expense still go on?

A. The pumping does.

Q. What men would that necessitate in employing?

A. One man.

Q. Would it necessitate an expense in addition?

A. No.

Q. Do not these expenses you have testified to pertain to drifting and self-draining coal?

A. No- after the shaft is sunk in the coal that you have to shaft, for the expense is incurred when you strike the coal—that is, increased. In the coal of the drift the pit mouths are just exactly in the same position, and you are ready to commence operations.

Q. Then the legitimate expenses incurred are adding an additional expense to the value of the enture coke plant?

A. The expenses afterwards are necessary. They have to be incurred.

88 Q. Do I understand you that there are no fixed expenses connected with the self-draining coal?

A. The shafting coal and drifting coal are similar; the only expense would be the distance from the pit mouth and the hauling that would be deducted from this, whatever it might be.

Q. Well, would there or would not be the expenses of hauling in the shafting mine?

A. You have the same expense in the shafting coal in hauling

the coal from the bottom of the shaft you have in the drift mine in hauling the coal from the mine to the pit mouth.

Q. Are you familiar with the process of converting coal in this region into coke?

A. Yes, sir.

Q. Are you prepared to say whether the coal which lies below water level is any more valuable for converting into coke than that which lies above?

A. Sometimes it is and sometimes it is not. The works belonging to McClure and Co. are drift mines, where the covering does not at any point exceed 60 feet, and makes the best coke that is made in the Connellsville region.

Q. Is it a fact that where coal lies below water level and is wet that it makes a greater weight of coke?

A. It is claimed so. I don't know of my own knowledge that it does not.

Q. If such is the fact would it compensate for the greater expense you have testified to?

A. No; because, as I before stated, you frequently find a drift mine equally as good if not superior to those of deep workings; the one I have just given, the Diamond mines of McClure &
89 Co., also the drift mines of the Pittsburgh & Connellsville Gas Coal Co., near Connellsville; they are more heavily covered than the Diamond mines and the coal is just as good.

Q. About how far is that from the Dickerson Run property?

A. Well, I suppose, five or six miles.

Cross-examined by Mr. BURGWIN:

Q. You make the cost of the plant about $20,000?

A. Yes, sir. I put it at a very low figure. I put it at $40 a foot. I have had a shaft sunk at least that cost $70 a foot above Uniontown.

Q. Well, in regard to the sinking of the shaft, you can't tell what it is going to cost until it is finished?

A. Yes; but you have to enter into a contract and the contractor must be governed by the characteristics of the ground. You have to enter into a contract with him and pay him so much a foot.

Q. Upon what basis have you made your estimate of the cost of the remainder of the plant?

A. Well, from actual observations and actual inquiry, seeing the men engaged, and ascertaining the compensation they received.

Q. I don't mean, of course, with regard to the wages, but I mean merely with regard to the values.

A. I made these very low, it seems to me. I don't know whether it could be done for that price now.

Q. Upon what basis have you fixed the values and prices of the machinery, boiler, cages, &c.?

A. Well, as far as the machinery and cages are concerned, of course in deep workings they require to be heavier and the boilers more powerful than in shallow workings. I fix it on that ratio.

90 Q. Is this a shallow working?

A. Yes, sir; it is shallow—80 or 100. There are some shafts that are 50 or 60, but not many in this region. There are two hundred and——

Q. But I understand you, Mr. Devlin, on your basis for fixing the value, $250 an acre is the value of the drift coal over the value of the pump coal in these two tracts?

A. In these two tracts which we have it is fixed by taking the value of the plant which you consider necessary for the operation of the pump coal and dividing that by the number of acres of coal. While I didn't do that, I assumed the plant to be 200 acres. If I took the area of coal we have here it would be much more.

Q. Then in fixing the price of pump coal over drift coal you would take the depth of the shaft as estimated and to the cost of that per foot you would add these other charges and then you would divide the number of acres. That would give you the value of the coal over that of the adjoining tract?

A. That is just how I arrived at the estimation.

Q. Have you ever been engaged in the buying and selling of coal and coke yourself?

A. No, sir; I never bought or sold any.

Q. Have you been engaged in the buying and selling of coal for coking purposes?

A. I have not, sir; the only thing I ever did was to make an examination and report certain property that persons wished to purchase.

Q. As a mining engineer?

A. Yes, sir; I did a great deal of that kind, but I never
91 had anything to do with purchasing.

Q. Have you made a calculation, Mr. Devlin, of the cost of operating a drift mine?

A. No, sir; I have not. The cost of operating a drift mine is exactly similar to the operation of a shaft mine. The opening of the shaft is, as I before stated, the pit mouth of the coal you have to shaft for just the same as the pit mouth is the entrance to the coal of the drift mine, and when you get the shaft sunk down to the coal you are just then in the same position and you have added that much, whatever the cost of your plant may be. You have added that much to the value of your coal, and you are just then in the same position when you are at the bottom of the shaft after having it sunk. You are in the same position precisely as you were when you commenced to open the drift mine, and the expenses of the working subsequently are the same. There is no difference; you have the same difficulties to contend with in one as you have in the other.

Q. All the elements which you have figured in your calculation of the total costs of the pump mine are essential, are they?

A. They are; in fact you can't operate a deep working in any other way. You must of necessity incur these expenses.

Q. They are all over and above the cost of the operation of drift mine?

A. As I said before, when you get to the bottom of the shaft they are precisely similar. If you are working in a drift mine there is, in my opinion, added just so much to the difference between the values of the coal.

Q. Is it not necessary to have an air shaft for a drift mine?

92 A. Well, not always. They have a double heading, what they call parallel headings—a space of 50 feet between. They generally have a furnace for the purpose of——

Q. What is the cost of such a furnace?

A. It depends altogether upon its size. Some coal is from 200 to 300 and 700 feet deep, and it contracts some expense to elevate it to the surface of the ground. Of course, they would cost a great deal more. Other- have wooden chimneys.

Q. In case the air shaft is not used in connection with the drift mine, what would be the cost of a double heading?

A. Oh, well, the cost would be the same as the driving of the——

Q. ——.

A. Yes; as a matter, of course, you would have to do the same in the drift mine. You would have to convey the air from the course into the workings for the use of the men. You have to do the same in the deep workings. You have to incur the same expense. In other words, the air is for the use of the men. You have to bring it up to the workings, so that the expense incurred from the bottom of the shaft is precisely the same in both cases.

Q. Mr. Devlin, you have made the examination of these two tracts of coal?

A. I have never been on them at all.

Q. Then your testimony in this case is given upon a hypothetical basis?

A. Exactly. I took a basis of 200 acres of coal, and on that basis I made my calculations.

Q. Then you have no opinion as to what will be the proper method of mining these two tracts?

93 A. No; I have not, because I have never seen them. Of course, the proper place to sink the shaft would be at the lowest point of the coal. That is not always practicable. It is a pity it is not.

Q. In case a slope was used instead of a shaft in the mining of the coal we have been speaking of what would be the difference—the difference in the expense?

A. Well, I can't state that now. I don't know; but I wouldn't suppose that it would be materially lessened, as far as the machinery is concerned. It seems to me it would cost about the same. I wouldn't think there would be much difference between the shaft and the slope. The slope would be on an inclination of 10 feet to the 100, and that would make it longer than the shaft.

Q. Well, would the driving of the slope cost any more than the driving of the entry in the drift mine?

A. O, yes.

Q. In case your coal cropped on the surface in both the drift and the shaft coal——

A. O, it couldn't. If the coal cropped, of course, there would be no necessity for the shaft, but if the coal was 100 hundred feet below the surface you would have to go through sandy ground. You would have to drive through it, and they are so much larger that, without having made any calculations, I can't say whether there would be much difference in the costs, but I think it would be about the same.

Q. Well, if you have two pieces of coal divided by a ravine and on one side the coal slopes towards it and on the other it slopes down from it, the coal cropping on the surface on both sides
94 of it, would the cost of driving the entries be the same or would they vary?

A. They would vary, because in the one case the water would run towards the pit mouth and in the other it would flow in an opposite direction and not—I am speaking of the entries. I think your statement was that the coal cropped out on the level on both sides; on one side it ran in one direction and on the other it ran in a different direction. Well, the only difference would be the cost, would be the pumping and the cost of hauling the coal up the incline, whatever it might be, if it was 3 or 4 or 5 to the hundred.

Q. Well, you have provided for the pumping by the construction of the heavy——

A. Yes; certainly.

Q. Then would not the difference be the cost of the shaft—that is, wouldn't you have to take away the cost of the shaft which you have estimated in your total?

A. I don't understand your question.

Q. I asked you whether the shaft could be dispensed with.

A. Well, the shaft can only be dispensed with by putting in an incline; that is the only way, and your incline will be so much longer than the vertical shaft that the cost of the incline will be as much if not more than the cost of sinking the shaft would be. Where your coal is 100 feet below the surface the only way it can be taken out is by shaft or slope; it can be taken out in no other way.

Q. Well, I don't think I understand you with regard to the incline which you propose to construct for the operation of this coal 100 feet below the surface. Suppose the coal crops out?
95 A. If it crops out you don't need a shaft at all. You have given me a case where you say the depth is from 80 to 100 feet. What would be the necessity of making a calculation?

Q. You can't tell accurately without examining the ground with regard to the value.

A. As I said before, I took 200 acres. It was to be sunk 100 feet, and you have the result now. If the coal is, as you say, out to the crop line there is no necessity unless it dips in one direction and rises in the other. It would be necessary to have almost the same cost, at least so far as the hoisting is concerned, for hauling up the coal, and on the other side where the water flows to the pit mouth——

Q. If this coal crops out on both sides, but one is towards the rise and the other to the dip, but they both crop out at one point——

A. You have no necessity for sinking a shaft.

Q. Mr. Devlin, at what height is it necessary to have the coal to the pit mouth?

A. To get it into the ovens; it depends whether it follows the land.

Q. Well, at what height?

A. If you have bins that hold a considerable amount of coal, in order to have a bin that will charge the ovens at once, you have to have one at least 30 feet below the pit mouth. You take the coal, dump it into the bin, and that puts it into the iron cars that run on top of the ovens, and the ovens are charged in that way.

96 Answer to question by master. Supposing the ground were level and here you had sunk your shaft, well, now, that shaft would be one hundred feet deep. In putting in a slope you start here and you run clear down to the bottom of the shaft, so it would be longer in that way than the vertical shaft would be; but I think I understand Mr. Burgwin's question. He says that this coal, both tracts, that one of them rises from a certain ravine; it will drain itself; the other dips and, of course, the water will have to be pumped and the coal to be hoisted. Now, in that case it would only be necessary to drive this incline or slope in the coal; it would conform with the dip of the coal, and thence that would eliminate from my calculation $1,100 of the cost of the shaft.

Redirect:

Q. Suppose that the pump coal crops out at one point of the surface and then slopes away, will you have to drive——

A. As I said before, where the coal crops out it is advantageous, because it will lessen the expense $1,100.

Q. In order to work this coal successfully, does it have to be opened at the lowest point?

A. It would be better, but it is not always practicable to do so. If the shaft were a slope it would go to the lowest point. If you opened it with a slope running with the coal, the expense would be equal if not more than the estimate I have made. With an inclination of 10 feet to the 100 your slope would be 1,000 feet in length; it is quite a serious matter the driving of a slope.

Q. How would we remove the water?

A. The water would have to be pumped just the same as if it were a shaft precisely.

97 Adjourned to meet at same place, Thursday, March 8, 1888, at 10 a. m.

SAMUEL S. BROWN *et al.*
vs.
JOHN H. SCHOENBERGER *et al.* } No. 18. November Term, 1887. In Equity.

MARCH 8, 1888.

Parties met and adjourned to meet Thursday, March 15, 1888, at 10 a. m.

MARCH 15, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; C. C. Dickey, Esq., counsel for defendant; G. C. Burgwin, Esq., counsel for plaintiff-.

JAMES S. DEVLIN, being recalled, testified as follows:

Q. Mr. Devlin, please state now whether since the last meeting before the master you have visited the premises in question and whether you have examined the same with a view to making an estimate of the relative values and give us them, — your opinion, and the result of your examination.

A. I want to explain to the master the position of the ground first. These are the Rainey ovens, and there is an opening at the lower end of the Rainey ovens; this pit mouth where the coal is taken out adjoins the 86-acre tract of coal on the opposite side and adjoining the larger tract of coal, 142-acre tract, is another opening; they have another coal-pit opening, but it is not being operated; the ground lying north from the opening, east from this smaller tract of coal, is suitable for the construction and erection of the necessary ovens to take out this coal; that 86-acre tract of coal on the opposite side of the railroad and adjoining or below the 142-acre piece is also suitable for the building of coke ovens, but the coal here
98 at these two openings is almost on a level with the railroad; when coke ovens are built along here, if they are built a side track will have to be put in on about the same inclination and level as the railroad for the 86-acre piece, and for the 142-acre piece the oven yard above these said pieces to be built will be five feet in height vertically, higher than the rail of the track; the ovens themselves will be ten feet; that will make fifteen feet to the top of the ovens above the railroad track and upon that will be the larry track, which will increase the height a foot and a half or two feet, so that will be 16½ or 17 feet above the top of the track.

Now, in order to get this coal from these two openings to the ovens built on either side of the track it is necessary to lift the coal—to lift it up. Bear in mind that the coal is on about the level of the railroad, and that this structure—these ovens—will be from 16½ to 17 feet above that point. Now it is necessary to lift the coal higher than that.

If a bin is built to contain, say, 30 or 40 or 50 wagons of coal, that bin will have to be 20 feet higher than the top of the tracks on the top of the ovens; that would be—17 and 20 would be, say, 37—say 40—feet above the railroad track. The coal would be elevated that height—from 37 to 40 feet; that would require the coal to be raised 40 feet above the pit mouth to get it into the bin.

Now there is another plan of getting this coal (without having a hoist) out of both tracts, and that would be to enter into the side of the hill at an elevation of 40 feet to get up to the height of
99 40 feet above the pit mouth, and there make an opening until the coal was struck in both. The same thing will apply to both. They can do either of these two things. They are the only two ways in which this coal can, in my opinion, be reached and raised a sufficient height to charge the ovens. It is a matter resting with the parties owning the coal either to adopt one plan or the other.

If an entry is driven into the hil- until the coal is reached there will be no necessity for the hoist nor engine or boiler, for they draw out the coal on the level of this 40 feet. They have their bin at that point, and they dump the coal into the bin on this ground.

Owing to the characteristics of the ground in which the ovens are built, an inclined plane might be constructed from the pit mouth going down to the ovens, but in this 86-acre tract there would not be a sufficient distance from this point to the ovens. There wouldn't be a sufficient amount of ground to get a reasonable incline by which the coal could be hauled up to the tops of the ovens or bin, so that that plan is not to be taken into consideration in this case. It can be done, for there is nothing impracticable where there is plenty of money, but it would not be advisable, nor would it be the cheapest plan. The cheapest plan, in my opinion, is to have the vertical lift or hoist so that -here would be a vertical lift at the pit mouth of the 86-acre tract and a similar vertical lift at the pit mouth of the other, so that all outside expense attending the one would attend the other. In that regard they are equal. The expense of the ovens are about the same. There is very little difference—very little in expense or construction of the ovens for
100 the 86-acre tract and for the 142-acre tract—so that, as far as the lifts are concerned and the necessary appliances for that purpose, they are equal.

Now, with this preliminary explanation I will go on and give you my figures. First, I take the expense of the 142 acres, the expense to be incurred in the construction of the plant, to mine the coal of the 142-acre tract: Engine and drain, $2,500; foundations for engine and drains, $750; four tubular boilers, each fifteen feet long, $2,000; engine and boiler houses, $1,500; drainage pump, $1,000; steam pipe, $200; exhaust pipe, $340; discharge pipe, $1,240; suction pipe, $630; draining hole from surface to pump at the extreme limits of the property of the 142-acre tract to the extreme eastern limit, $350; boiler on the surface, $250; coal and attendance of boiler, $250; making the total cost of the plant $11,010.

But I wish to explain here the reason for the drainage of this hole and the pumping at that point. It is about ½ mile or 2,600 feet across this tract. These discharge pipe and suction pipe are laid in the bottom of the entry in which the pipes are planted and the sulphur water eats them out very rapidly. They are expensive, as you can see by the cost. In some cases it will not require more than from 2 to 3 months where the sulphur water is very strong,

but as a general thing their life is not more than six months, so that they have to be renewed twice a year in order to avert the expense of relaying these pipes. I put in this additional pipe and the pipe extending from the surface down to the pump, and the other water of the mine is pumped at that point, and the expense of put-
101 ting in this discharge pipe and the suction pipes is in that way averted, and it costs a great deal less in taking out the coal of the entire plant.

Now, I said two hoists should be erected, one at either of the pieces of coal, at the pit mouth. The hoist for the pit mouth of the larger tract of coal has to have an engine and a boiler for the purpose of hauling the coal out of the mine and also for the purpose of supplying steam for the pumps.

At the 86-acre tract they have to go to the expense of a boiler and engine to hoist the coal. In order to take the coal out economically I would have a self-acting plane, so that the wagons coming down the plane would haul up the empty wagons. In order to have a self-acting plane there is the cost of the engine and boiler at the hoist, and there is a cost of the sheave and the necessary fittings in the mine. That sheave will have to be removed from time to time as the work of driving the heading progresses, and has to be continued there during the time the coal is being taken out.

Now, the expense of this engine and boiler is $1,000. That is for the hoist at the 86-acre tract, and the expense of this drain would be $500, making $1,500 only, which, being deducted from the cost of the plant (the 142 acres), leaves a difference between the cost of the plant when they are ready to take out coal, $9,510, the difference between the larger and smaller tract. The difference between the two plants when they are both ready to take out coal is $9,510. In other words, the larger tract has to expend $9,510 in order to take out the coal in the same condition as the 86-acre tract. That would make $67 per acre for the 142 acres of coal.

Now, so far as the attendance at these two hoists and in
102 the mines is concerned they are both equal. The expense incurred in the smaller tract and the expense incurred in the larger tract is equal. There is nothing to be taken into consideration on this account. In other words, it will require as many men at this hoist as it will here. It will require as many men here to take out the coal of the hoist as it will in this tract to put it into the wagons and pull them up the plane, so that, as far as that is concerned, both works are equal. Now, the only difference is the difference of the man to attend to the pump. I put his wages for this coal, this 142 acres—(if 150 ovens are constructed they would consume nine acres of coal yearly, and in fifteen years the coal would be taken out. 150 ovens are as many as are built for that amount of coal. There are tracts of coal much larger that have no more than 100 ovens. From 75 to 100 would be necessary for the 86 acres, and the 150 for the other would, in my opinion, be the proper number. Of course, that is entirely optional with the owners. If they wanted to get out the coal in a very short space of time they can build more ovens, but they have to take into consideration

whether it would pay them). Now, the only difference, as I said before, is the difference of this may at the pumps. In the 86-acre tract it is self-draining, and there is no pump required. In the 142-acre tract all the coal has to be pumped, and this pump, being placed on the outside for the reasons I have stated, would require a man to attend to that pump. Now, if you take his yearly salary at $638 during that time, he would take out for each year he would pump nine acres of coal, and in fifteen years the amount of his sal-
ary would be $9,570. If you divide that cost by the 142 acres
103 you have again $67 per acre. If you add the difference between the amount per acre, $67, and for pumping, $67, you have the aggregate difference between the value of the coal as $134 per acre.

Q. Mr. Devlin, I understand you to be now testifying from examination made of these coal properties.

A. Yes, sir. When I testified here before I was testifying to a thing that I had not seen; did not know the surroundings of the tracts or how the coal looked or anything about it. When I went up there I found it was entirely different from how it had been represented to me, and I made my estimate accordingly.

Q. Will you state to the master what examination you made?

A. All the examination that I made I have stated in full. It was the only examination I could made. We went around the property. Mr. Cochran kindly took me around; that was all there was to do. I was more particularly interested in making this estimate to see the location of the pit mouths and the whole cost with relation to the railroad and what would be absolutely necessary to be done in order to go on and coke that coal.

Q. I do not know that you have mentioned in your estimate anything about pumping.

A. All that was taken into consideration in my statement when you were out of the room. I think that the sooner the heading is driven in the 142-acre piece and the water pumped at that point—I think it would be for the benefit of the operator, very considerably to his benefit, to get rid of the action of the sulphur water on the discharge pipe.

Q. What is your final judgment as to the relative values
104 of these two tracts?

A. As I said before, $134 per acre difference; the larger tract will cost more than the smaller tract. I herewith submit a statement showing what I have testified.

Cross-examined.

By Mr. BURGWIN:

Q. Mr. Devlin, I think I asked you at the last examination, but I will ask you again so as to be sure, whether or not you are familiar with the actual buying and selling values of coal in this neighborhood.

A. No.

Q. Is it not a fact, Mr. Devlin, that it costs more to operate a smaller tract of coal land than it does to operate a larger tract?

A. Yes, sir; it does; a great deal more. Supposing that on the hypothetical case that I testified to, supposeing it were 200 or 300 acres, supposing it were 142 acres, the deduction would be ⅓. So far as the pumping is concerned, of course it wouldn't change anything, but so far as the value per acre is concerned that value of the tract would be different, because the same plant in which we operate the 142-acre tract would operate a quantity three times that large.

Q. Then, if you have two tracts of coal adjoining, one containing 86 acres and the other 142 acres, operated in two different ways, the expense of operating the 86-acre tract would be greater than that of operating the 142-acre tract?

A. Yes, all things being equal; supposing that in the 86-acre tract the coal worked to a dip—it is because the coal has worked to the rise in the one case and the coal worked to the dip in the other that the larger tract increased in value. You can operate the
105 86-acre tract by mule power or by this self-acting plane; as I have already stated, you have no drainage; the only expense is going into the side of the hill, but that is incurred in both cases.

Q. Well, leaving out of mind for the present the facts, charges for draining, extra machinery necessary and the extra pumper necessary, would not the cost of operating the 86-acre tract be greater than of operating the 142-acre tract?

A. No; I can't see it in that way—no; I don't take the same view of it that you do; the cost of operating the 86-acre tract cannot be increased more than the cost of the plant necessary to operate it. The cost of the 142 acres is increased by reason of the coal having to be worked to the dip and requiring this machinery; that increased the cost and makes the increase in the price; it cannot be operated without that machinery.

Q. Well, you don't catch my question.

A. Well, I don't understand you.

Q. I understand from your testimony-in-chief that you put a larger plant of ovens for the operation of the 142-acre tract?

A. Yes, sir; but that has no bearing at all upon the estimate.

Q. That would make the output of the 142 acres more than the 86 acres. Wouldn't there be certain fixed charges in the employment of, for instance, the superintendent, a mine boss, and employees, which would have to be paid for the same in the 86-acre tract as they would in the 142-acre tract?

A. Yes; during the time that the 86-acre tract was being mined out.

Q. Well, then, the output being greater of the larger tract, would not the value to the operator be greater in the larger tract
106 than it would in the smaller tract?

A. Yes, sir; but I haven't taken into consideration in making my estimate the entire workings of the mines; nothing of that kind has entered into my calculations, simply the outside arrangements for operating this coal. All these expenses are incurred be-

fore you begin to mine coal at all, so that so far as the operating expenses in the mines are concerned it hasn't entered into this estimate that I have made at all.

Q. Well, would it not be a fact that the benefit to the operator would be greater in the larger tract than in the other?

A. A great deal would depend upon the manner in which it was done; a very great deal depends upon the operator. Some operators will work their mines for not 25% of what others would; in this a great deal depends upon the judgment and the operator.

Q. Then there may be a difference to the operator of this coal from the fact of one tract being larger than the other, which you have not taken into consideration?

A. No; I haven't taken that into consideration at all. No, sir; that didn't enter at all into the consideration; I simply took the necessary and absolutely necessary things that had to be done before any coal was mined; I took nothing else.

Redirect:

Q. Mr. Devlin, how could there be any difference to the operator other than you have stated?

A. O, well, the fact of the matter, as far as the operation is concerned, hasn't went into the consideration at all; I consider that, until the coal is mined, the expenses are equal.

Recross examination:

Q. That is not saying they would be equal per acre?

107 A. No; I mean to say that as far as my estimate went I didn't take that into consideration at all; I took the cost of the plant outside of the coal if worked to the dip and the cost of the plant if worked to the rise and deducted the cost of the one from the cost of the other and in that way arrived at the price per acre. Now, as I said before, if the larger tract of coal was double the area that it is—in other words, if it was 284 acres—why, it would only take one-half of that; it is owing to the acreage of coal that you have.

Redirect:

Q. Would or would not the entire expense be the same?

A. The entire expense, so long as we mine extensively—suppose 100 ovens on the 86-acre tract and 150 on the 150 tract, the 150 ovens would take out nine acres a year; the 100 ovens would take out six acres; divided into 86, 14⅓ years to work out the coal of the 86-acre tract, and it would take 15 years to work the coal out of the larger tract—142 acres.

Adjourned to meet Thursday, March 22, 1888, at same place, at 10 o'clock a. m.

SAMUEL S. BROWN *et al.*
vs.
JOHN H. SHOENBERGER *et al.*
} No. 18. November Term, 1887. In Equity.

MARCH 22, 1888.

Parties met.

Present: C. Hasbrouck, master; Mr. Shiras, counsel for defendant-; G. C. Burgwin, Esq., counsel for plaintiff-.

Col. ALEXANDER J. HILL, being duly sworn in behalf of defendant-, testified as follows:

108 Q. Where do you reside, Col.?

A. I live in Dunbar township.

Q. Have you resided there any length of time?

A. Yes, sir; pretty much all my life.

Q. Do you know these coal tracts that are spoken of as the Parkhill farm and the Hogsett and Wilson farm?

A. Yes, sir; I have some knowledge of them as adjoining property with my own.

Q. Do they both adjoin?

A. No; just one.

Q. Which is that?

A. The Hogsett and Wilson joins my farm.

Q. Have you any familiarity with the coal and coke business?

A. I have had several years' experience in it for several years back.

Q. Which of these two tracts, in your judgment, Col., is, acre by acre, the more valuable of the coal?

A. Well, in my opinion, I judge the Parkhill coal, being above water level, would be the most valuable piece of property.

Q. How high does it lie?

A. Well, it lies high enough to drain without pumping.

Q. And what is the case of the other piece?

A. The other piece of coal all lies below the water level.

Q. Does theat circumstance of the one being above and the other below the water level make a difference in the expense of working?

A. Yes; in my judgment, I think it would make considerable more expense to mine the coal that didn't drain.

Q. What estimate would you put on that difference?

109 A. In my opinion there would be considerable difference.

Q. Well, what estimate would you put upon that difference?

A. Well, I would say $200 an acre difference.

Q. What have you to say with respect to the quality of coal in these respective tracts?

A. Well, I wouldn't suppose there would be any difference, lying adjacent to each other. The quality, I would judge, would be the same. The coal of Mr. Rainey, of which I have knowledge, adjoining the Parkhill tract, makes very elegant coke and is very clean from slate.

Q. Then, if I understand your views in this matter, the difference, whatever difference there is, between these two tracts as to value particularly is founded or based on the expense of working arising out of the one being above water level and the other being lower than water level?

A. Yes, sir; that would be my way of making the difference. From my own observation I would make the difference in that way.

Q. Look at this map and point out to the master on the map where the Parkhill piece lies and where the Hogsett and Wilson lies.

A. This is the Parkhill here and this is the Hogsett and Wilson tract here, as marked on the map.

Q. The one lies on the one side and the other on the other side of the township road?

A. The Hogsett and Wilson tract lies on the east side of the township road. Here is the ten acres that was bought with the Hogsett and Wilson tract of coal. I believe that would be the line of that from the looks of it. The other would lie some distance from the township road, a body of land lying between it and the township road.

110 Q. You speak of that ten-acre piece; is it all surface?

A. Yes, sir; principally. There is some little coal.

Q. Well, that ten acres lies adjacent to the Hogsett and Wilson tract?

A. Yes, sir; right on the west side of it or southwest of it, but that lies in front of the Hogsett and Wilson field, as I understand the map.

Q. Well, you speak of your property; where does that lie?

A. This would be my property here, adjoining the Hogsett and Wilson tract, marked on the map as property of Alexander Hill.

Q. This being a proceeding, Col. Hill, with the view to an equal partition between the Shoenbergers and Brown and Cochran of these properties, with which of them, in your judgment, ought these ten acres to go for the convenience of working the coal?

A. Well, in my opinion, I would think that that ought to go with the Hogsett and Wilson tract, being in front of it.

Q. Well, how could it be used with respect to mining the coal in the Hogsett and Wilson tract?

A. Well, the place, I would say, to open it on, would be no place but on the 10-acre piece, as it fronts on the Hogsett and Wilson coal.

Q. Can you give us any judgment of value of that ten-acre piece, what you think it is worth?

A. Well, just as much as would be paid for land without having coal under it, from $50 to $75 per *an* acre.

Q. Well, you say it has some coal under it?

A. I suppose there would be a little coal below the road here. I wouldn't say how much there would be, as some coal has been mined out of this below the road. I think there is some two or

111 three drives that have been driven in there, I could not say

just how far. I don't know what amount might have been mined out.

Q. Well, that coal that is under the 10 acres would not be mined out of the same drifts or the same openings as the coal under the Hogsett and Wilson tract?

A. Yes, sir; it could be mined out of the same drift.

Q. How far, with reference to the rise in the land, the Parkhill—what is the level of the ten-acre piece, as compared with the surface of the Parkhill tract?

A. You mean, would this piece be lower ground?

Mr. SHIRAS:

Q. Yes; which is higher and which is lower?

A. This would be the Parkhill line here. This would be higher. The Parkhill surface would be higher than this, considerable.

Cross-examined by Mr. BURGWIN:

Q. What are the boundaries of the ten-acre tract of which you have just spoken?

A. The boundaries of it? It is bounded on the east by the township road or county road, and on the north by property owned by James Cochran and Shoenberger, I believe, and by the Parkhill lands, and by property owned by Mr. Rainey, purchased from John Hare. That would be this piece here.

Q. What amount of surface is necessary to the working of a tract of coal of the size of either 86 acres or 142 acres, Col. Hill?

A. Well, that would be altogether owing to the shape of the surface. If it lay in a long strip in front of your coal—if it lay bodied up where you have to block your ovens up—it would require more surface to do it than if in a long strip.

112 Q. Well, how much in the one case and how much in the other?

A. Well, I don't know whether I understand you. You mean how many acres of coal?

Q. How many acres of surface would be requisite for how many acres of coal, for the working of, say, 142 acres of coal?

A. Well, it is generally estimated to be about an oven to the acre. We generally take about 15 or 16 feet for an oven; of course that doesn't include all the land necessary to operate that amount of coal.

Q. Well, how much altogether would be requisite for the proper working of coal tracts that size?

A. I say that would be a great deal owing to the shape of your surface. If it lay strung out in front it wouldn't take as much as if you had to block up your ovens; it would take five or six acres.

Q. You think five or six acres would be sufficient?

A. Well, I didn't say that would be a requisite amount; it might even require more than that.

Q. How much would be required for a tract of 86 acres to be properly worked?

A. In answer to your former question I said, for instance, your land would be strung out into a narrow strip; you could work it on a less quantity than if you had to block your ovens.

Q. Well, if you could get along with five or six acres of surface for 142 acres of coal——

A. I didn't say that you could do that. I said it might occupy no more than that; it might, perhaps would, occupy more.

Q. Well, how much more?

A. Well, I don't know that. I am not a practical engineer, and can't say.

113 Q. Well, assuming.

A. Well, I don't assume that. I say that it might not. I didn't assume that would be sufficient.

Q. Can you tell us what would be sufficient?

A. I can't do it. I am not a practical engineer.

Q. I believe you said you were the manager of the works of Mr. Rainey. Are those the ones marked on the map?

A. Well, I have had charge of them since they have been constructed.

Q. How long is that?

A. I believe they began constructing the ovens there about the latter part of last July, I think it was.

Q. Were you engaged in the coke business prior to that?

A. Yes, sir; I was employed by Mr. Rainey at the Fort Hill works, on my own property.

Q. How long were you in Mr. Rainey's employ there?

A. Well, I began there in the winter of 1880.

Q. What is the character of the coal as regards pump or drift coal where you are operating now in the mines of W. J. Rainey?

Shown on the map in evidence.

A. It is pump there—that is, we pump the water out.

Q. How much of that coal do you pump the water out?

A. Well, we are pumping out of all we are using.

Q. What is the character of the Fort Hill coal?

A. That is drain coal; self-draining coal.

Q. Upon what do you base your estimate of $200 per acre as being the value of the self-draining coal over the pump coal?

A. Well, I estimate that by way of machinery, labor, piping, pumping, and all such labor as is not attached to the mine

114 that drains.

Q. What are the expenses that go to make up that estimate?

A. Well, of course you have got to have pumps, engines, pipes, and a great deal of extra labor to do this.

Q. How do you arrive at your exact figure, $200?

Q. Well, I don't arrive at a exact figure. I give it as my opinion that there would be at least that much difference. I didn't give it exact; just my opinion from observation of mines that do pump and also of this mine that we are pumping now.

Q. Have you been engaged in the mining of coal or the opera-

tion of a coke plant in any other place than the two of which you have spoken?

A. Why, yes, sir. I have been about Mr. Rainey's Moyer mines, along the West Pennsylvania road, about two and a half miles from Connellsville. I wasn't steadily employed there, but I went there as a helper.

Q. What is the character of that coal as to pumpage and drainage?

A. Well, part of that coal was drained; a very small part of it.

Q. What part did you have in the operation of that coal?

A. Well, I didn't have any particular part there. I went there occasionally to help out any little work. I had no particular occupation there.

Q. How long have you been pumping the mines on the John Hare farm?

A. Well, we have been pumping them since we began operating there last year. It is not a great while since we began making coke there. I believe it was the early part of the fall. I forget the exact time.

Q. Well, I ask you again, Col. Hill, what is the basis upon which you fix your estimate of $200, the value of drift coal, against
115 the pump?

A. Well, I didn't fix any particular basis. I merely take it from my observation and what I know of the additional expense seemed to be incurred in mines where they pump it.

Q. Of your own knowledge?

A. Well, yes; of my own knowledge.

A. Well, will you give us what your knowledge is?

A. Well, in the first place you must prepare to pump by having pumping machinery; you have to have engines and pipes and mine pumps and additional labor. I also partially fix in my mind as being a fact from men who had experience and who estimate it as being higher than that.

Q. Do you know what the expense of pumping coal in the J. Hare farm is, Mr. Hill?

A. No; I can't give you the exact amount for pumping; it has been very heavy.

Q. Well, I understand you to say you don't know of your own knowledge what the exact cost of pumping would be.

A. Well, I can't give you the exact figure.

Q. Mr. Hill, do you of your own knowledge know the values of coal land in this neighborhood?

A. I know of some sales in that neighborhood at different times.

Q. Well, Col. Hill, if the 142-acre tract, with sufficient surface adjacent to it to work it properly, was offered for sale, what, in your opinion, would it sell for per acre?

A. Well, I don't know what other people would be willing to pay for it. In my opinion, I would say it would be worth from $300 to $350 per acre.

116 Q. If the Parkhill tract, containing 86 acres of coal, with

sufficient surface adjacent to it to work it properly, was offered for sale what would that bring per acre?

A. I would judge from $500 to $550 per acre; that is my opinion. You ask me for my opinion about it.

Q. What would that tract of surface land adjacent to the Hogsett and Wilson tract, containing 45 acres, bring per acre if sold in connection with this tract of 142 acres of coal?

A. Well, about the usual price of land of that character is $50 to $75 an acre.

Q. As appurtenant to coal lands for the operation of coke plants?

A. I don't know of any being sold specially for that purpose.

Q. Well, do you know of any sales of surface in that neighborhood for any purpose?

A. I don't believe I know of any farms changing hands lately there.

Q. Then you don't know of any sales at all in that neighborhood?

A. Well, I have no positive knowledge of any farms changing hands in that neighborhood lately. I don't recollect any at present.

Q. Do you know of any sales of surface land at all?

A. The man who has been living on part of the Hogsett and Wilson surface here sold his surface, and I understand the man who lived on the other half sold his, but at what figure I am not able to tell. I can't say positively.

Q. Who did he sell to?

A. I understand Leisty, living on the divided half of the surface of the Hogsett and Wilson tract, and Rankin on the other. I suppose about half. I don't know as to that.

117 Q. Do you know of any sales of coal in this neighborhood?

A. Yes; Mr. Rainey purchased the J. M. Work farm, the land lying—I don't think it is described on this map, but it would lie somewhere in here, I would judge; I suppose south of the Thomas Hare tract.

Q. Is that pump or drift coal?

A. That is pump coal.

Q. Do you know of any sales of drift coal anywhere in this neighborhood?

A. No; I don't know that I do lately.

Q. How far back does "lately" go?

A. I don't know of any with—I don't recollect, but I have a knowledge of the price of——

Q. Upon what, then, do you form your basis of $550 for drift coal per acre?

A. I say that was my criterion to go by.

Q. You don't know of any sales?

A. I don't know of any sales just in that neighborhood lately. I have known of some drift coal being sold at $600 along the Mount Pleasant branch of the road. I can't say that it was exact or that it was a rumor.

Q. Don't you —, Col. Hill, of drift coal being offered at a less figure than that in this locality?

A. No; I can't say that I do. I don't know of any that have been offered for a less figure than that, to my own knowledge.

Q. Well, upon what do you base your estimate of $300 or $350 as a figure for which the Hogsett and Wilson coal would sell?

A. Well, I base it on what I said to you first I would consider a difference; if I was purchasing one, while I would give $550
118 for this one, I would give that difference for the other. In my experience in the working I would think there would be that much in my judgment—in my experience of what I have seen and heard others say of working coal that had to be pumped.

Q. Do you base your estimate of $300 or $350 upon the Hogsett and Wilson tract upon the sale which you said you know of the Joseph Work tract?

A. No, sir; I did not. I think Mr. Rainey paid too high. I said so at the time.

Q. Mr. Rainey gets the surface with that property entire?

A. Yes.

Q. Well, is the Joseph Work coal as good or not so good or valuable per acre as the Hogsett and Wilson coal?

A. How do you mean? For mining purposes?

Q. In your opinion should it command in the market the same or less than the Hogsett and Wilson coal?

A. Well, it is a very difficult matter to decide what the Joseph Work coal would be, from the fact that it has never been opened.

Q. Then it is difficult to tell until opened, or that it would be just as good as the coal adjoining?

A. I don't know but it would be just the same.

Q. How much too much did Mr. Rainey pay for the Joseph M. Work tract, in your opinion?

A. Well, I told him at the time I would not pay more than $400 for the surface and all. I wouldn't pay more.

Q. What is the cost of the machinery necessary in the Rainey mines where you are operating now, the pump mines?

A. I can't give you that amount now.

Q. Can you give anywhere near it?

119 A. Our openings are small there.

Q. Then you can't tell us what the cost is to pump the water?

A. Well, our machinery is not very heavy; we have not much of an opening; it is not as expensive machinery as they expect to put in there or as expensive as they will require.

Q. What is the dip in the coal in the Rainey mines where you are operating now?

A. Well, I don't know exactly; it is about 2½ or 3 feet to the hundred.

Q. Which way does it dip?

A. Southeast.

Q. You say it adjoins the Parkhill tract?

A. Yes, sir.

Q. The Parkhill tract, then, presumably, has the same dip?

A. Yes; it certainly would have; it joins at this point.

Q. That is the lower end of the Rainey coke ovens?
A. I suppose that would be the property line.
Q. Well, how much of the Parkhill tract would have to be pumped, Col. Hill?
A. I would judge that coal would very closely drain to that line.
Q. There would be some of the Parkhill tract that would not drain?
A. A very small portion of it; this corner here. In my judgment it would very nearly all drain.
Q. The Joseph Hare tract, worked by Rainey, has to be pumped?
A. Yes, sir; the Joseph Hare tract of coal is dipping this way, while this is up here. We wouldn't have any chance here. We are operating at the very highest point; they would be operating the lowest. We are at the very highest point of the Joseph Hare tract.
120 Q. Well, if part of the Parkhill tract of coal has to be pumped what would be the difference in value, if any, between the Hogsett and Wilson coal?
A. I can't say that.
Q. Be the same value?
A. I think so.
Q. Have you any knowledge of the difference in the character of coke obtained from a given area of pump coal as over a given area of drift coal?
A. No, sir.
Q. *No* nothing about it?
A. No; I don't.

Redirect:

Q. Do you mean to be understood there, Col. Hill, that as far as you know there is no difference?
A. So far as I know there isn't any difference.

Recross-examination:

Q. I made a mistake. I meant to have asked if there was any difference in the weight of the coke.
A. From my own observation I don't know that there is any difference in the weight of coke obtained from the same area of coal.

THOMAS JOHNS, being sworn, testified in behalf of defendants as follows:

Q. Where do you reside, Mr. Johns?
A. I live at Moyer, Pennsylvania.
Q. And have you lived there any considerable period?
A. I have lived there about a year and a half.
121 Q. Do you know this property that is being inquired about in partition—this Parkhill tract and the Hogsett and Wilson tract?
A. I have been over the ground. I am not well acquainted with it.

Q. Have you had any experience as a dealer in coal and coke?

A. No, sir; I haven't been dealing in it.

Q. Have you had any experience or knowledge of the coke business?

A. I have been in it for some four years now; on and off for about seven years, but not really engaged in making coke.

Q. Have you any knowledge of the character and quality of these coal-fields that I have spoken of?

A. I have been over the surface and know something of the lay of the coal, I think.

Q. What is the nature of the Parkhill coal-field?

A. The Parkhill coal-field is much higher up than the other coal-field spoken of.

Q. Would it, in your opinion, be a tract of coal that could be mined; that would drain itself?

A. The most of the territory would drain itself; there might be a little of it that would not drain, very little.

Q. How about the Hogsett and Wilson; would it require pumping?

A. It would have to be pumped, so far as I know.

Q. What, in your judgment, Mr. Johns, would be a fair allowance? Supposing the coal to be of equal value and of equal extent, acre by acre, what would be a fair allowance for the difference between a tract of coal that would require to be pumped during the mining and a tract that would drain itself?

A. Well, I could not speak from my own experience, but I would think anywhere from $150 to $200 would be a fair difference
122 to make.

Q. What are your reasons why the one would be worth less than the other?

A. The expense of working the different fields.

Q. In looking at this property was your attention called to a certain ten-acre tract of surface that lies adjacent to the Hogsett and Wilson tract?

A. Yes, sir; I looked over that ground.

Q. Well, with reference to that and supposing the parties here were aiming but at a partition between the Parkhill farm and the Hogsett and Wilson farm, with which of these tracts ought that ten-acre piece to go?

A. I think it ought to go with the Hogsett and Wilson tract, from the fact that it lies immediately in front of it.

Q. Did you form any judgment that you can give us, Mr Johns, of the value of these coal-fields by the acre?

A. Well, I have a general idea of what they would be worth to me. I don't know what they are sold for in that neighborhood.

Q. Where is the coal in which you have dealt—where does it lie?

A. I have not been dealing in coal.

Q. Well, you speak of being in the coal business.

A. No, sir; I didn't. I am employed.

Q. Where are you employed?

A. I am employed at Moyer.
Q. How far is that?
A. It is about seven miles, I suppose.
Q. Well, having in view the prices they have paid there in the field where your experience has been, what value would you
123 put upon these two tracts?
A. Well, I think one of them would be worth anywhere from $500 to—$450 to $500; the other might be worth anywhere from three to four hundred dollars.

Question by Mr. BURGWIN: Do you know of any sales made in the locality of Moyer?

A. There have been no sales made there lately. I don't know what parties are holding land at.

Mr. BURGWIN: The witness not having sufficient knowledge to testify, I ask the master to strike out the testimony which he gave in answer to the question of Mr. Shiras upon the value of the two respective tracts of coal.

Cross-examined by Mr. BURGWIN:

Q. What is your business, Mr. Johns?
A. I am operating the Moyer coal works as manager.
Q. How long have you been manager there?
A. I have been there about two years and a half.
Q. Are the Moyer mines pump coal or drift?
A. Pump coal.
Q. Upon what do you base your estimate of the difference in the values between pump coal and drift coal?
A. The difference in the expense of operating the mines.
Q. What do these items of expense consist of?
A. Well, they consist of engines, to start with, pumping lines and pumps, and the expense of operating.
Q. What does the expense consist of in figures?
A. I don't know that I can figure it, sir.
Q. Presumably.
A. Much would depend upon the depth from which the
124 water has to be pumped.
Q. ——.
A. I don't know that it is. I am speaking from my own judgment.
Q. You are speaking from your own knowledge without the knowledge of what the buyers and sellers consider the values?
A. I have had considerable experience in pumping water from the Moyer mines.
Q. Did you have any experience in the operation of coal mines or coke plants prior to becoming manager of the Moyer mines?
A. I have had some knowledge of coal land.
Q. You are a brother-in-law of W. J. Rainey, I understand?
A. Yes, sir.
Q. Mr. Rainey is interested in this coal that is the subject of partition?

A. I don't know that.

Q. Mr. Johns, what are the boundaries of that ten-acre tract that you said ought to go with the Hogsett and Wilson tract?

A. I don't know that I can give the boundaries.

Q. Then why did you say that the ten acres ought to go with the Hogsett and Wilson tract?

A. Well, I see that it lies immediately in front.

Q. Anybody point them out to you?

A. Yes; it was pointed out to me.

Q. Who pointed them out?

A. They were pointed out by Mr. Mitchell.

Q. Who is Mr. Mitchell?

A. Mr. Mitchell is a brother-in-law of W. J. Rainey.

Q. Brother-in-law of yours?

A. No, sir.

125 Q. And you think that piece that lies between the Parkhill tract and the Rainey coke ovens is necessary to the operation of the Hogsett and Wilson tract?

A. I would consider ten acres large enough to work the coal on.

Q. You think they ought at least to have ten acres of surface to work the coal on?

A. Much would depend upon the shape in which the land lay.

Q. Then when you say the ten acres should go with the Hogsett and Wilson tract I understand you to mean merely that the Hogsett and Wilson tract ought to have ten acres of surface to work it properly. Is that correct?

A. It should have that much to work it.

Q. You say yes to my question, do you?

A. Yes, sir.

Redirect:

Q. As it was pointed out to you, Mr. Johns, it bear- that position with respect to the position of the Hogsett and Wilson tract; that would be a proper place to operate the Hogsett and Wilson tract?

A. Yes, sir.

Recross-examined:

Q. How would you use the piece of surface between the Pittsburgh, McKeesport and Youghiogheny track and the Rainey coke ovens in connection with the operation of the Hogsett and Wilson tract?

A. It would be a very handy place to dump ashes and débris from the works, and my experience with coke ovens has been that you never have too much room.

Q. Then you would consider it necessary for a dumping ground?

A. Yes, sir; it would be necessary to have dumping ground.

126 Q. Well, if you could get the same amount of surface across the road it wouldn't make very much difference?

A. The difference in crossing the road don't amount to a great deal.

SAMUEL S. BROWN *et al.*
vs.
JOHN H. SHOENBERGER *et al.*
No. 18. November Term, 1887. In Equity.

TUESDAY, *April* 24, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; C. C. Dickey, Esq., counsel for defendants, and George C. Burgwin, Esq., counsel for plaintiffs.

JULIUS C. SHIPLEY, being duly sworn, testified in behalf of defendants as follows:

Q. Where do you reside, Mr. Shipley?
A. I live in the East End, Pittsburgh.
Q. What is your business—profession?
A. Mining and civil engineer.
Q. How long have you been engaged in that busines-?
A. Since about 1868.
Q. Where have you practiced it?
A. In Fayette and Westmoreland counties.
Q. Have you had experience in the mining and coking of coal in these counties?
A. Yes, sir.
Q. What experience?
A. I have located the—about five-sixths of all the plants in the region.
Q. How long have you had experience in these counties?
127 A. Well, about that time.
Q. Have you done work in the Connellsville basin?
A. Yes, sir.
Q. To what extent?
A. Well, I located a great many ovens.
Q. Have you been familiar with the mining of coal and converting it into coke?
A. Yes, sir.
Q. Are you acquainted with the values of coal lands in the Connellsville basin and particularly in the neighborhood of Dawson?
A. Yes, sir; to some extent.
Q. Do you know the tracts of coal land under partition—the Hogsett and Wilson tract and the Parkhill coal?
A. I do.
Q. Have you examined these tracts of lands?
A. Yes, sir.
Q. With what degree of particularity have you made your examinations?
A. I made a survey. I had a blue print of the map before the master; traced these lines all out. I believe the survey was made by Mr. Taylor.
Q. Have you made an examination of these tracts of land with a view to determining their values?
A. I examined them for the purpose of determining the correctness of the outcrop of the coal and other points connected with the survey.

Q. Do you know their relative values?

A. Well, taking it generally, we consider the crop line——

128 Q. Well, first, do you know the relative values of these two pieces of coal?

A. Well, I would say, I was just going to say——

Q. Well, but the question was first, do you know it; do you know about what the difference is?

A. Well, I would make, so far as my judgment goes, I would make a difference of about two hundred dollars ($200).

Q. Well, in favor of which?

A. In favor of the drainage coal.

Q. That, you think, is two hundred dollars more valuable than the other piece?

A. Yes, sir; that is the real value. I believe the difference between the two——

Q. In speaking of two hundred dollars, do you mean taking the whole tract together or acre for acre?

A. I mean that taking the two tracts, the Parkhill tract and the Hogsett and Wilson tract, the position of the two tracts, one self-draining and the other not, that there is a difference of two hundred dollars, about, per acre; that the Parkhill would be that much more valuable than the other, acre for acre.

Q. Will you state to the master upon what basis you fix this opinion?

A. Well, I take the expense of opening, machinery, and the labor necessary to be employed to extract the coal—that is, the Hogsett and Wilson tract—taking these together, the time necessary to work it out, and the amount that would be worked and the proportionate number of ovens for working it, that it will average about two hundred dollars per acre to do that.

Q. I wish you would state what advantage the Parkhill

129 tract possesses over the Hogsett and Wilson tract.

A. Well, self-draining coal—as a matter of course there is no pumping to do, the coal can all be drawn out by mule power; there is no necessity of employing machinery, and the weight of wagons and the expense of getting up the wagons would all be in favor of the Parkhill tract.

Q. How about trestles and things of that kind, would they be needed for the use of the Parkhill tract?

A. There would be no necessity as I could see of any trestle at all.

Q. Well, what expense would be connected with the Hogsett and Wilson tract?

A. That would have to be mined by a slope, and that would necessitate a trestle about 400 feet, and would have to — through natural earth for the purpose of getting elevation necessary to make location—that is, make location for the ovens on the south side of the railroad, or rather on the east side. That is expensive and the machinery necessary to lift the coal out an incline would be rather expensive. The machinery and the construction of the works would cost about ten thousand dollars. It would take a large pump, about

2,400 feet of discharge pipe, about that amount of steam pipe, and rollers and ropes would have to be purchased at an expense aggregating about ten thousand dollars as far as I can calculate. I have made a calculation of the kind.

Q. Would there be no difference in the weight of the coal, allowing for twenty-five feet crop line upon the Parkhill tract?

A. I examined that crop line and find it agrees very well with what he (Mr. Taylor) says, and that in my judgment sets at
130 rest the quality of the coal. I don't think there is any difference in the quality of the coal; I think the Parkhill is equivalent to the other.

Q. Is there no difference in the market between the drifting coal and the shafting coal?

A. I have not known any. It might in that particular region.

Q. Do you know of any instance where extensive works are operated drifting coal in that region?

A. Mr. Laughlin has been mining that kind of coal and Mr. James Cochran and Schoonmaker and a good many of them have been operating along about the west side of the Mount Pleasant railroad.

Q. Do you know of any difference in the market?

A. I have never known any difference between the two coals. This crop line that is run by Mr. Taylor makes a good, merchantable, and valuable coal.

Q. Well, is there no superiority in the shafting coal in converting it into coke; does it make more coke?

A. I don't think it does.

Q. When you speak of two hundred dol-ars difference in value do you refer to the selling price of coal there in that vicinity?

A. Well, I take it this way: I have known sales of coal—that is, drainage coal—and the difference between the two amounts to that. As a matter of course that is in a general way.

Q. Then, do you mean us to understand that to be the av-rage difference?

A. Well, I would take it from calculation, the expense of mining, and from what I know would make the average, especially in fields of coal the size of these. They are both small fields
131 and as a matter of course there would be about that difference. A man who hadn't very much money and wanted a field of that kind that field would just suit him.

Q. Taking these two tracts, one containing one hundred — forty-two acres and the other eighty-six acres, would the difference in area of coal make any difference, acre for acre, in the price? Take it by the acre.

A. No; not in fields of that kind.

Q. What do you mean?

A. Men having large capital and intending to go into the coke business they don't buy many fields of that kind. They are too small. Men having large capital want to buy large fields.

Q. What do you call a large field?

A. Four or five hundred acres on to a thousand and fifteen hundred acres.

Q. Is the entire Parkhill tract self-draining?

A. Well, according to Mr. Taylor's lines of level and his line of greatest dip I would take it to be entirely drainable.

Q. Mr. Shipley, have you examined the surface land connected with these tracts of coal?

A. I have.

Q. Have you looked at it with reference to the proper division to be made of it?

A. Yes, sir; I looked at that to some extent.

Q. You know that one of these pieces contains ten acres and a fraction?

A. Yes, sir; I do.

Q. Do you know whether this ten-acre tract was purchased with the Hogsett and Wilson tract?

132 A. Well, I don't know it as a fact, but it was a piece of the original tract.

Q. Mr. Shipley, I wish you would state to the master whether there is a run or creek passing through this surface land.

A. Yes, sir; there is a stream of water passes through it, running west of the railroad, to a point about here.

Q. This railroad keeps off the stream of water, does it not, from the Hogsett and Wilson tract?

A. Yes, sir; it keeps it off entirely.

Q. What, Mr. Shipley, would be the proper way to divide the surface land, the ten acres and the twenty-six acres, so as to be of the best advantage to the owners of the two tracts of coal? And give your reasons for your opinion.

A. That is, to divide the ten acres and the twenty six acres?

Q. I mean what would be the best way to divide the twenty-six acres between the two tracts so as to be of the greatest advantage to their respective owners?

A. Well, if I was going to divide that to give the Hogsett and Wilson the ten acres should go with that.

Q. The ten acres should go with the Hogsett and Wilson tract?

A. Yes, sir.

Q. Well, what division would then be made of the twenty-six acres?

A. Well, to mine that one hundred — forty acres according to the way we mostly do to work that out in proper time so as not to lose anything by the operation, there ought to be about an oven to the acre, and that would require about one hundred — forty ovens, and you would need about seven hundred feet of surface, and,

133 after deducting this seven hundred feet from the twenty-six acres, I think that this piece should be equally divided between the two tracts of coal, so that the Parkhill tract could have buildings on this side, and the party owning the Hogsett and Wilson could have building room and at the same time be accommodated for coke ovens. To mine this coal—the Hogsett and Wilson—you should have a slope, and, according to Mr. Taylor's greatest dip, you would have to put the slope in where the old pit mouth is marked on the map, and then, by locating your engines on the west

side of the railroad and following the bed of the coal and the greatest dip of your slope, it would be on a straight line. This grade not being very great, not over three and a quarter or four feet to the hundred, you find, by having it on a straight line and elevating your engine here, it takes off the friction and then you can run your trips and pass off your flats to the right and left and mine and take out your coal very nicely.

Q. Then you would locate your shaft near where the old pit mouth is marked on the map?

A. Yes, sir.

Q. Suppose that in the division of this land the Hogsett and Wilson coal got the land on the east side of the railroad, how would it be about placing their engine?

A. They would have to place their engine here in this position as a matter of course—between the railroad and the township road.

Q. Would there have to be a shive?

A. Yes, sir; you would have to make a turn there and pull over a shive and come back, but then that produces friction; but
134 this grade is too light to carry your trips when you have to pull.

Q. Then, I understand you that if the surface land east of the railroad only was given to the Hogsett and Wilson tract you couldn't operate this on a straight line?

A. O, yes; you could operate it on a straight line—that is, so far as the main heading would be concerned; but to put in the machinery and the heading with which to operate, to do this kind of thing, the location should be on the west side of the track.

Q. Now, Mr. Shipley, you say that the run is on the west side of the railroad?

A. I do.

Q. Then, if the railroad were made the division line of the Hogsett and Wilson and the Parkhill tracts, the Hogsett and Wilson tracts would be cut of from the run?

A. Yes, sir.

Q. I will ask you what necessity there is for an approach to the run in operating the Hogsett and Wilson coal.

A. Well, in discharging water there, I don't know how you would get rid of the water you have to pump out of the mine; you could not discharge it on this side because this party would object. This ground here would be necessarily taken up with tracks. It could be carried along this railroad in boxes, but in this way it could be discharged under the railroad into the stream.

Q. The run is the natural outlet?

A. The run is the place to discharge the water.

135 Q. I will ask you what necessity there is for having an approach to the run for the deposit of ashes.

A. In the manufacture of coke you make ashes, and by having a stream of water and disposing your ashes along the stream, it carries a large amount of these ashes away.

Q. Is there no place upon the west, or rather east, side of the railroad where ashes could be placed?

A. You would have to locate your ovens here; there is no place to deposit or carry away the ashes you would make; you would have to carry your ashes back here. To take your ashes across there and deposit them on the bank of the stream, they would be carried away by freshets; the others we would have to haul around on the east side and deposit them between the track and the township road.

Q. Down where it is marked "area of surface, 24.45".

A. Yes, sir; I mean that.

Q. A stream of that kind would be taken into consideration by a party purchasing coal?

A. Yes, sir.

Q. I call your attention to the land on the west side of the track; I want you to state whether that would be of any value.

A. I can't see what value it is to that tract of land, because there is no place to locate ovens—there is no necessity, for all the ovens that it would take to operate the eighty-six acres has all the siding room needed without it, and I think that the party who owned the eighty-six acres should have a portion of that twenty-six acres on the east side of the railroad.

Q. You say that the strip of land on the west side of the
136 rail- is no place to locate ovens on; why do you say that?

A. There is no room; it is taken up by the stream.

Q. The land on the east side of the railroad, is there sufficient room for locating ovens for the Parkhill tract?

A. Yes, sir.

Q. What is the nature of the ground?

A. Well, as you go west, or rather northwest, the strip of land west of the railroad, why the ground rises; it is part of the ten acres. There is a spring and small stream just near that line that indicates the Parkhill tract, and the ground is hardly sufficient for block ovens, so they would make money by going westward. If I was the engineer I would go west several hundred feet; then, as the coal rises in that direction at the rate of three and a half feet to the hundred, and by going from there you have an elevation of nine feet for your coal; when you have arrived at three hundred feet it would put you by the railroad.

Q. How many ovens would it require properly to work eighty-six acres?

A. About eighty-six ovens.

Q. Is there room enough on the west side of the railroad, on the twenty-six acres, for these ovens?

A. Yes, sir.

Q. Now, you have testified that it requires 700 feet of the twenty-six acres on the east side of the railroad track for the Hogsett and Wilson coal.

A. I would locate for that tract about one hundred forty ovens.

Q. Then there would be some of that tract undivided still; what use——

137 A. I would divide the balance equally between the two tracts, because otherwise they would have no room for

houses; that is all the surface connected with it. There would be no places for houses for their miners; they would have no place unless they build them right back of the ovens, in the smoke.

Q. I wish you would describe that piece of land fully.

A. Why, the land lying north of the seven hundred feet north of the ten acres, it is 2,026 feet, as marked on the map, from the line of the ten-acre tract down to the end of the twenty-six acres. The balance of the tract, about 1,300 feet, is what you would divide equally.

Q. Well, would such equal division afford the parties sufficient room for the erection of houses?

A. Yes, sir; for the houses they could build on it; but it would accommodate them, for it would give them room for their houses.

Q. Now, will you state, Mr. Shipley, with the division suggested by you, about what the relative areas would be of the pieces which the two pieces of coal would get—about how near the surface land would be?

A. Well, the Hogsett and Wilson tract would have about twenty acres and the other about sixteen acres.

Q. State in what way you would divide the piece of ground needed for the houses.

A. I would divide by a line running east and west or a line running very nearly at right angles across the railroad to the township road.

Q. Mr. Shipley, in case the railroad were made the dividing line of both tracts, the Hogsett and Wilson would have no access to the run, would it?

138 A. No, sir; not till they get down here at the north end of the twenty-six acres.

Q. In that case would the Parkhill coal have any surface land for the erection of houses?

A. I don't think they would.

Q. Now, in the method of division suggested by you, would the Parkhill tract have a better location for the erection of houses?

A. Yes; I take it that the party owning the Parkhill would be better satisfied with that division.

Q. According to your opinion of this thing, after dividing the surface land, which part would be given to the Parkhill and which to the Hogsett and Wilson?

A. Why, I would give the north part to the Parkhill tract and the other part, as it adjoins the Hogsett and Wilson, to that.

Q. What is your reason for giving the south part to the Hogsett and Wilson?

A. Because it adjoins it and their houses could be built to suit the ovens.

Q. I will ask you whether the north end of the twenty-six acres which you suggest giving to the Parkhill coal would then be clear of smoke?

A. Why, as much so as is possible.

Q. In the division suggested by you, would each piece of coal then have about an equal creek front?

A. No, sir.

Q. What then would they have?

A. Why, the Parkhill would have the most creek front. Now, in taking the ten-acre piece, the parties in that case would be
139 very nearly divided as to the creek front.

Q. Would they in that case have enough creek front to get rid of their ashes?

A. The Parkhill would have; the other with the exception of a very little piece at the north end.

Q. In the division now you suggest——

A. I said that would about divide it, giving the same creek front, and in this portion of the surface front here the Parkhill has the most creek front. With my division, the division that I would make would still give the Parkhill the most creek front. When I speak of dividing the twenty-six acres I mean that the railroad should be the division between the two pieces.

Cross-examined by Mr. BURGWIN:

Q. You say that according to your division the Parkhill tract would get some valuable surface. How valuable would it be?

A. Why, this portion of the surface between the township road for building—I don't know that I could place any real value, but it would be about as valuable as property there. I am not exactly versed in the price of land. I suppose it would be worth $75 or $100 an acre, anyhow, at the least.

Q. Do you know the selling price of land in that neighborhood adjoining and appurtenant to coal lands?

A. Yes, sir; I know that some land sells for $75 and some for $50, and some $100.

Q. Whereabouts?

A. Why, right in the immediate neighborhood there. I think Mr. Cochran sold the surface overlying his coal for $60 an acre.

Q. Do you know that of your own knowledge?

A. I only know it by hearsay.

140 Q. When was that?

A. It has been, I suppose, only two years ago.

Q. How many acres?

A. I forget just the number of acres that I surveyed; sixty or eighty, or something like that.

Q. What was it sold for?

A. Farming purposes.

Q. I ask you — know as to value of surface appurtenant to coal tracts and used for operating purposes?

A. Oh, well, you have to pay for that kind of land. They will ask you two hundred an acre and more, just owing to the surface adjoining; just owing to how much a man would want.

Q. If you get sufficient surface, which is sufficient for the operation of the coal, it is usual for the operator and purchaser to pay about $200, I understand you?

A. Oh, well, it is not usual; some may pay that, and some get it for less. There has been paid $100 and $200.

Q. You made a survey of the Parkhill and Hogsett and Wilson tracts and the surface lying between them?

A. I made a survey of the two tracts of coal.

Q. You didn't survey the surface?

A. Not lately.

Q. Did you have Mr. Taylor's map with you or a copy?

A. I had a blue print of the map.

Q. You found it correct, did you?

A. To some extent.

Q. Well, to what extent?

A. I found his map, so far as I traced that, all right.

Q. That is what I mean, you found the map correct?

141 A. I think there is an error in a bearing there.

Q. Did you find any other inaccuracy on the map?

A. Why, on the Parkhill tract I found an error of ten feet.

Q. Where was that?

A. It would be a good survey with that exception, the calculation coming out with fourteen perches.

Q. Which line was that, Mr. Shipley?

A. Why, the crop line of the Parkhill tract. The old line on the map marked south eighty-eight degrees ten minutes west one hundred sixteen and six-tenths feet, I make one hundred and twenty-six and six-tenths feet, and that closes the survey up nicely.

Q. You found it correct in all other respects, did you?

A. Yes, sir; I found it all right.

Q. These matters you speak of don't affect the partition, do they?

A. Oh, no; I found the survey generally correct.

Q. The acres are correct?

A. The acres are all correct. I calculated them all over and found them all correct.

Q. You say the difference in the value between the two tracts, the Hogsett and Wilson and Parkhill tracts, would be represented by the cost of the machinery necessary in the Hogsett and Wilson and not in the other?

A. Yes, sir.

Q. That was $10,000, I think you said?

A. About $10,000—that is, the machinery and the labor and operating it put together. Taking the time that one hundred forty-two ovens would take to extract the coal and put it into coke, you would have about $200 and a fraction over to each acre.

142 Q. Now, what would be the extra cost of the labor and pumping?

A. Why, I make it that the engineer and pumper would cost you about $1,260 a year, and that your interest on your $10,000 would be about $600. These two items added together and multiplied by seventeen, divided by one hundred forty-two, would give you the average amount to each acre. The engine would cost about $4,800, the boiler about $1,200, and the rope would cost $400, steam pipe about $442, discharge pipe about $110, about that, and then the expense of erecting the engine-house, putting in your trestle-work. I

think this is a very low estimate, takeing the trestle-work and the machinery and everything in connection.

Q. Have you ever operated coke works, coal mines, yourself?

A. No, sir.

Q. Do you know of any sales of coal lands in this neighborhood?

A. Why, W. J. Rainey purchased the Work farm. I don't know exactly what he paid for it. He bought the coal and surface.

Q. Do you know of any other sales in that neighborhood?

A. You mean just in that immediate neighborhood?

Q. I mean in that immediate neighborhood, similarly situated and located.

A. You mean similarly located as to both of these pieces?

Q. Yes.

A. Well, I know some in the region, but not in that locality. There was a sale and Strickler bought the piece. I think he paid $500; so I understand

Q. Whereabouts was that?

A. That was on the Mount Pleasant raod near the Summitt mines.

Q. Was the coal and surface bought by Mr. Rainey drain-
143 age coal or pump coal?

A. We have to pump this to work it, but I suppose if he had an adjoining tract he could make it drain to some extent.

Q. Upon what, then, do you base your values that the Parkhill tract is worth $200 per acre more than the Hogsett and Wilson? I would like to have the items.

A. Well, I just said the cost of the machinery and the price of operating.

Q. That is your basis for giving your——

A. Yes, sir; and from what I know of the prices they ask for that kind of coal. There was a tract of land — by the Dunbar Furnace Company. Reed wanted to buy it, and they ask- him $700 for it an acre. This Bradley coal that Mr. Strickler bought is crop coal, and can be drained. A Mr. Wharton was there. I was the engineer for him, and we were to pay $500 an acre. At the same time there was coal said to be selling at $250 and $225, but it was below water level; that was near Stonerville, on the southwest branch. Mr. Fricke bought another tract of land in the same vein of coal, but some six or eight miles away. The party represented to me it was within three-quarters of a mile of the railroad. I never saw it.

Q. They said they had coal to sell for $250.

A. Yes, sir.

Q. Well, Mr. Shipley, can you give us what in your opinion the Hogsett and Wilson tract would sell for per acre if put up for sale?

A. Taking the two tracts?

Q. Taking the Hogsett and Wilson tract, what would it sell for if put up for sale tomorrow?

144 A. Just the coal?

Q. Just the coal.

A. Well, I suppose for about $400.

Q. That, in your opinion, is the value of that coal tract?

A. Yes, sir.

Q. If the Parkhill were put up for sale to-morrow what would that sell for per acre?

A. Sell for six hundred dollars, in my opinion?

Q. That is, in your opinion, the value of the Parkhill tract of coal?

A. Yes, sir.

Q. You think it would sell for $600 an acre if put up?

A. Yes, sir; I think it would sell for more.

Q. Would you give that?

A. Yes, sir; I would rather give $700 for the Parkhill than $400 for the other.

Q. Well, if you were one of the small operators you were speaking of?

A. Well, if I was one of the small operators I would want the Parkhill and would pay $700 for it.

Q. Well, what, is your opinion, is the value of the thirty-six acres of surface land lying between the two tracts?

A. ——.

Q. Well, upon what do you base your opinion that the Parkhill would sell for $600 an acre to-morrow?

A. Just from the fact that it is convenient to mine—not the expense of draining it there would be in the other.

Q. Well, that was as to the relative. I asked you why you placed that more than you would $800 or $900 or $400.

145 A. Why, from the convenience in mining.

Q. Did you ever buy any coal or operate yourself?

A. No, sir.

Q. Did you ever buy coal for others to operate?

A. Well, I have negotiated some sales; yes, sir.

Q. In this neighborhood?

A. In the coke region; yes, sir.

Q. Where?

A. Why I made a sale of the coal adjoining Schoonmaker.

Q. Where is that?

A. That is in Jimtown. The Reed tract sold there. I have been familiar with all the sales.

Q. Is that pump or drift coal?

A. That was drain coal.

Q. What per acre?

A. $25,000. There was about 30 acres of coal and one hundred odd acres of surface. I think there was thirty-odd acres of coal—not much over thirty. I can't tell exactly how much surface.

Q. About how much—120 or 130?

A. Something in that neighborhood—from 120 to 130 acres of surface.

Q. How much was that for the coal per acre?

A. Well, I don't know how they value their coal. It was just a sale of that kind.

Q. Is that all you sold?

A. That was all that was sold.

Q. Is that all that entered into the estimate?
A. There was a farm-house and barn and it all sold for $25,000.
Q. Do you know anything about the sale of the Rankin coal and the Harper coal?
146 A. Yes, sir; I surveyed that for Mr. Cochran.
Q. Is that pump coal?
A. That is all drain coal.
Q. What did they sell for an acre?
A. Well, I don't know; it strikes me that Mr. Cochran paid $225. It strikes me that way.
Q. How long ago is that?
A. I can't tell exactly how long ago that has been.
Q. What did the Harper coal sell for an acre?
A. I don't know whether that was one hundred or not.
Q. Was that drain or pump coal?
A. Well, the Harper drains, with the exception of a little on the outside. He would have to take a little portion out on the dip.
Q. Was it not about the same time that the Harper and Rankin sales were made, of which you have been speaking, that you negotiated the sale of the Reed farm?
A. No; I don't think so. It was some time after.
Q. Which was after?
Q. Why, the sale of the Reed coal was afterwards.
Q. Where are the Harper and Rankin coal tracts situated?
A. Situated near this coal; the Harper tract adjoins the Park-hill tract.
Q. You speak of that Harper tract having been sold, coal and surface both, at $100.
A. Well, I think so; I am not certain about that. It strikes me that it was considerable less than what he paid for the Rankin.
Q. The Rankin tract joins the Harper tract?
A. Yes, sir.
147 Q. Mr. Shipley, I wish you would locate on the surface land adjoining the Hogsett and Wilson tract where you would locate your engine for the operation of the mine of which you have — speaking. Mark it with pen and ink, please.
A. The place where I would locate the engine for the Hogsett and Wilson tract is that marked engine on the west side of the railroad and west of the creek.
Q. Now, Mr. Shipley, will you please mark on the map where you would place your pit mouth for the operation of the Hogsett and Wilson tract?
A. About where the pit mouth is marked on the ten-acre tract. I would locate the pit mouth for the Hogsett and Wilson tract in connection with the — that I have already described, at the point marked pit mouth or a little to the right or south.
Q. At what elevation above the railroad would your pit mouth be?
A. Why, I would make the elevation to suit our convenience.
Q. What would be your convenience?
A. We would want an elevation of twenty-five feet.

Q. Is that the elevation of the old pit mouth?

A. Well, we would make it suit.

Q. What would be the grade of the slope to operate the Hogsett and Wilson?

A. Why, I propose there to increase the grade, say, ten to fifteen feet to strike the coal, on account of its dip; then when I would get the coal I would follow the grade of the coal, whatever that would be.

Q. How many cars would you haul out on that slope?

A. One hundred horse power in and pull out twenty.

148 Q. Mr. Shipley, cannot your engine be located on the east side of the railroad track in front of the Hogsett and Wilson tract so as to operate your mine economically?

A. Why, it could be. I said before that it could be located on the east side, but in that case you would have to give your ovens room there and put your engine in position, and you could locate on the west side and pull directly over the end of your trestle with the slope and locate your engine on the side and pull direct on the line of it, but it makes too much friction for that kind of ground, say from eight to twelve to the hundred, and work with friction drums and a direct reversible engine, and that would be all right, but you work so much more easily by locating on the direct line and pulling slightly off a shive at the same direct line than when you have friction drums. You can hold your trips nicely, and it is much more simply operated than the other way. That is my mode of operating the coal; that is my idea of it.

Q. It is simple and convenient, as I understand?

A. It is not very convenient, but it is a — of the party operating it, because it pays.

Q. What grade would it take to overcome the friction?

A. Why, I calculated that right down fine, but when a grade gets less than three feet, why, we have trouble with our trips.

Q. If you have three feet or more it would be sufficient?

A. Yes, sir. The only way to overcome the friction is by adding on more weight and having longer trips.

Q. What do you mean by long trips?

A. Why, twenty cars, fifteen cars, and so on.

Q. Then, with a grade of three feet and twenty cars, the

149 friction would be overcome?

A. I didn't say that. Just to give you an idea how the thing worked, when you have light grades you have to add to your trips to overcome the friction, but when a grade gets lighter than three feet you can't operate it very well.

Q. Well, if you didn't say that, isn't it a fact that, with a grade of three feet to your slope and twenty cars to your trip, that the friction of the slope would be overcome?

A. The friction of the shive, you mean, in drawing that over the point of the trestle?

Q. Yes, sir.

A. Well, I am satisfied that it would be more than overcome, but I would have to make calculations to satisfy myself in the position

than I would place the machinery whether I could overcome the friction in that —; it might be.

Q. You say the other way. What other way?

A. Why, by pulling it in the same straight line. I was operating a mine and our grades there run, at the start, about four feet; then they lightened out to about three feet for three to four hundred feet, and then they widened for about five hundred feet, and then lightened to about three feet, and we have on fifteen to twenty wagons.

Q. Well, if you do overcome the friction, it is the same thing for the operator whether it is on a straight line or not?

A. Why, as a matter of course.

Q. Then, if you have the grade to overcome the friction, it makes no difference where you place your engine?

A. If you have sufficient force there. Well, there is another thing is connection with this, that a party in operating—

150 the way I propose, it gives you room for your trips coming down to unload, and your gravity carries them right back; then it gives you room for your coke cars standing on the side track to load. It would give them all these conveniences by having the engine located as I say, although the machinery might be located on the west side, but in that case it makes extra friction, and the most operators object to in on that account.

Q. How many ovens would be proper to work the Hogsett and Wilson tract economically?

A. Well, now, I have always had this idea, and I know it strikes the approval of a good many operators, to locate about an oven to the acre if you want to realize from your investment. The more ovens you can locate the better, but not to exceed an oven to the acre.

Q. How much track room do you need for each oven?

A. I don't understand your question.

Q. How much room for the cars to carry the product of your ovens would you need?

A. Well, I don't know; it is just owing to where you make your loading place. We carry about a thousand ovens, and they are located about thirteen and a half feet apart—that is, from centre to centre—and in locating eighty ovens it would take about 1,080 feet, and your side track to accommodate that would be the length of your ovens.

Q. Would you need no siding room besides what run in front of your ovens?

A. Well, no; not for the number of ovens you have; you would have plenty of siding room.

151 Q. How much siding room would you need for 142 ovens besides the siding in front of the ovens?

A. Why, thirteen and a half feet to an oven.

Q. Besides that what would you need?

A. You wouldn't need any.

—. If you were constructing a coke plant how much would you

consider necessary to the operation of that properly—how much siding besides what run in front of the ovens?

A. That is owing to the number of cars you have. You might make a collection of cars in that way, but you don't need any more siding room than the track in front of your ovens, because your empties run in, and when they take the loads out the empties run in. Some have two tracks and some have more, just according to the room and conve-ience.

Q. Do I understand you to say that -f you were locating a coke plant that you would consider it not essential to have more than sufficient siding than would go in front of these one hundred forty-two ovens?

A. If you had the room and could conveniently get in more siding room you might need it, but it can be operated with the same amount of siding room as the length of your ovens.

Q. If you can get it how much do you consider it proper to have?

A. Why, for 142 ovens you want twelve or thirteen cars and about four hundred twenty feet of siding room.

Q. You wouldn't want any more than that?

A. I don't see the necessity of any more than that, and putting the cars in unless you have your own cars, but for the small operators I don't think they would want to get up individual cars.

152 I think they would take the loaded cars out and put in their empties. I located Mr. Cochran's ovens, and I don't think he has any siding room except at the upper end of the ovens.

Q. Is it not usual, Mr. Shipley, in constructing coke plants to have considerable extra siding room immediately in front of the ovens?

A. At a great many works they have only tracks for their special use. They put their empties in and take their loads out. It is just owing if you have room and want to expend the money in that way. It is not really necessary.

Q. You say you are operating at Moyer?

A. I have been engineer there.

Q. They are owned by W. J. Rainey?

A. I believe so.

Q. It was at his request you came here?

A. No, sir.

Q. At whose request was it?

A. Mr. Shiras'. I don't know that Mr. Rainey is interested in this matter specially.

Q. What were your directions when you made the survey?

A. My directions were to examine these outlines and see that they were right and to go to the mine and see what — our mines bear to these tracts of land. That is about all.

Q. You were requested to examine with regard to the values?

A. I was asked to give my opinion as to the values of this coal, and so forth.

Q. That is what you were asked after you came here, you mean?

A. I was asked to go and examine this coal, determine whether

this map was correct or not according to the surveys that had been made, and to give my opinion as to the values of the one
153 more than the other and to the proper location of the machinery and for the division of this surface. I was asked since I came here as to where I would divide it, and also to look over the property divisions and see if it would agree with the division in partition. I have given it the best I can.

Q. Well, I wish you would state where you would locate the ovens for the Parkhill tract.

A. Well, I would locate them starting about three hundred feet from here, because as you go north the ground rises, and if you come out on that line the ground rises and gives you the advantage of the rise.

Q. Where do you begin the line of ovens north of the ten-acre tract?

A. About two or three hundred feet from here.

Q. Where would you locate the pit mouth for the operation?

A. Well, I never examined that closely.

Q. What machinery would be necessary in the operation of the Parkhill tract?

A. No machinery.

Q. How high above the railroad would the pit mouth of the Hogsett and Wilson tract be?

A. I would make it about 30 feet; twenty-five or thirty feet; just to suit convenience.

Q. How high above the railroad would you make the pit mouth of the Parkhill?

A. I would make that to suit the location of the ovens.

Q. Then you don't know what height the Parkhill pit mouth would be above the railroad in order to operate properly?

A. I am satisfied from the location of the coal that the ele-
154 vation necessary to operate with can be had.

Q. How much would be necessary?

A. About twenty-seven and a half feet or so above the level of the railroad.

Q. Would that be above the level of the outcrop of the coal?

A. It need not be above the level of the outcrop of the coal; it could be operated to suit that, for you could make your opening below and take advantage of the grade and come to it; we do. We often have to haul a little distance.

Q. Well, then, there would be two plans, one to open the pit mouth 25 feet above the railroad and eight feet above the railroad?

Q. Well, to open the other at a convenient point so as to get gravity and not to interfere with the hauling by mule power.

Q. Well, if you open eight feet above the railroad?

A. Well, if you open eight feet above the railroad, why to make twenty-seven feet you would have to make nineteen feet.

Q. How would you do it?

A. By length of line. I would open the coal in this way.

Q. How would you open?

A. I would open near the elevation necessary.

Q. How would you get up grade?
A. By the same power you bring your coal out.
Q. What power would you use?
A. Mule power.
Q. What would be the cost of elevating the coal into the larries?
A. Oh, it would not be more than——
Q. That is about the same?
A. Yes, sir; there would be no difference.

Q. Then, if the Parkhill tract had to employ machinery or
155 mule power what would it cost to charge their larries?

A. It would cost as much as it would hauling upon the inside of the Hogsett and Wilson tract to get to their larries. There would be no difference in the machinery there from the fact that the grades in the Parkhill are entirely different from the other.
Q. There would be no difference you mean?
A. A difference in the kind of machinery.
Q. There would have to be some machinery, then?
A. No necessity at all.
Q. What would they use?
A. Mule power.
Q. Which would be the most expensive?
A. Machinery.
Q. Why cannot they use mule power in the Hogsett and Wilson tract?
A. Because the way they have to work that on the grade.
Q. What would be the grade?
A. Why, to pull up the centre here according to the greatest dip here, it strikes me; we have three and a half out of thirty-five, and if the greatest dip is 55 it is still more than that.
Q. What did you say would be the grade of the slope of the Hogsett and Wilson tract?
A. Why, three and a half to four feet, I presume; I have never been right on the grade.
Q. What grade would they have to overcome on the Parkhill tract to charge their larries?
A. ——.

Q. Would it not cost as much to get the coal into the lar-
156 ries in the Parkhill tract as it would to get it into the larries of the Hogsett and Wilson tract?

A. No, sir.
Q. What would it cost? Why would it not?
A. ——.
Q. Your estimate of $700 for the Parkhill is based upon the supposition that all the Hogsett and Wilson coal will be hauled up this slope of three to three and a half feet and all of the Parkhill will be hauled on the down grade?
A. I have said that the machinery and the expense of operating the one makes the difference.
Q. Well, now I wish you would locate on the map a pit mouth, which will enable you to get the coal into the larries without haul-

ing it up grade and which will bring all the coal out of the Parkhill coal on the down grade.

A. In locating the pit mouth I would be governed entirely by the lay of the coal, and I would locate the pit mouth just at right angles with that line. I would locate the pit mouth near the line that is marked north thirty-seven degrees twenty-two minutes west one hundred eighty-two and three-tenth feet.

Q. That line represents the cropping of the coal?

A. That represents the twenty-five-foot line.

Q. How much of the coal, then, if the pit mouth were located there, would you have to haul up to get into the larries?

A. Why, I said before I didn't know exactly.

Q. Well, then, if there is a considerable quantity of coal which would have to be hauled up grade it would make a difference in the values, the relative values, of the two tracts of coal, would it not?

157 A. I don't think so. You have coal-fields that drain themselves; they have more or less of that kind to do.

Q. You think it would make no difference in the two tracts of coal?

A. Not when you employ the same power to do it.

Q. No matter how much of the Parkhill tract you would have to elevate, it would not influence you?

A. Not if you employ the same power.

Q. You would have to pay more to elevate the same amount of coal into the Hogsett and Wilson larries?

A. It is owing to the machinery.

Q. It wouldn't make any difference — deal of machinery you have put into your estimate for the Hogsett and Wilson tract?

A. I say it is just owing to the power used. It is just the difference between the two.

Q. What is the difference between the two?

A. I have represented them.

Q. Would you not have to employ mules to haul the coal, you say you don't know the amount, to put it into larries, and would it not cost something to feed the mules?

A. You would have to increase your mule power; that would be a little extra expense.

Q. Well, with a grade of eight feet to the hundred, what would it cost?

A. Well, with a grade of eight feet to the hundred it would cost——

Q. How much difference would the one-half make?

A. I can't say.

Q. Can't you give us any idea?

158 A. Well, of course you would have to increase your mule power.

Q. How much power?

A. I don't know. I don't think it would be necessary in this case.

Q. Well, I wish you would locate on this surface land which you have said would be convenient for the Parkhill tract where you would locate your ovens.

A. I have said the ovens would be located 300 feet from the ten-acre line—that is, to make an economical location.

Q. How many ovens do you think proper and necessary for the operation of the Parkhill tract?

A. I said an oven to the acre.

Q. How many feet would that make?

A. That would be eighty-six times thirteen and a half feet—would be 1,080 feet.

Q. Now, would or would not it cost anything to get that coal which we have been speaking of into the larries?

A. As a matter of course, Mr. Burgwin, it costs in all cases to get it in, but one has to be operated by mule power and the other by machinery.

Q. Now, can you tell us what would be the difference in getting that coal out of the Parkhill tract from the elevation of the cropping of the coal into the larries—what difference would that make?

A. I would have to make an actual location and get the exact grades to do that, but I would say from my knowledge of the ground that there is no necessity for employing anything but mules.

Q. Well, then, after making the examination you have
159 been speaking of, might there not be some difference made in the estimate of the two values?

A. I don't think there could be; there might be some little, but not very much. I have been talking to a great many operators lately, and they all put their estimate much higher than that.

Q. Is it not a fact, Mr. Shipley, that operators buying coal, some of which is drain and some of which is pump, otherwise being similarly situated with regard to facilities for shipments—is it not a fact that operators in buying make a difference of from $50 to $100?

A. Well, I cannot answer that question. I have talked to three or four coalmen not long ago about the matter, and they all place it higher than that, but some might make that difference.

Q. But don't you think that if these two tracts of coal with the surface were put up for sale to-morrow, would they not bring, in your opinion, with- $100 of each other an acre for the relative amounts of coal?

A. I don't think they would.

Q. Don't you think that Mr. Rainey would?

A. I don't know that he would do.

Q. Well, he is a fair representative of the coke operator?

A. I don't know whether he knows much about it or not.

Q. Mr. Shipley, your estimate of the values of these two tracts of coal has been based upon the cost of the machinery necessary to the Hogsett and Wilson tract and the extra engineer and pumper in the case of the Hogsett and Wilson. Now, are there any other
160 considerations which enter into the amount besides these elements which you assume in making your opinion?

A. Oh, there may be.

Q. Does not the relative value of the coal sometimes——

A. That is just what I said some time ago: when capitalists wish

to go into this kind of business they associate together; they want large coal-fields.

Q. Would not the same general expense, exclusive of machinery, be necessary in the operating of the 86-acre tract as well as in the 146-acre tract?

A. Well, no; when you operate by machinery you increase the weight of your wagons, make them heavier and stronger.

Q. Well, I am not speaking so much of that; I mean the employment of a superintendent and mine boss and other employees of that character.

A. According to an act of the assembly you have to have a mine boss.

Q. Well, would not that, taking the area of the two tracts—would not that make the smaller tract cost more per acre?

A. Well, in the small tract you get it out sooner; an oven to the acre would require the time to get it out, to use 80 ovens.

Q. Would it not cost you more per acre?

A. Well, the larger the tract the longer it takes to get it out.

Q. Takes the same time, but wouldn't you get out fewer acres of the smaller tract?

A. Yes; but you don't have the expense you have in the other.

Q. I am speaking irrespective of that. Wouldn't it cost more per acre for the smaller tract?

A. Just the same.

Q. But there are other things in putting in these works
161 and keeping them up in repairs, &c.?

A. I have not taken that into consideration at all.

Q. Does there not a difference exist in the tonnage of coke per acre of dip coal over the tonnage of coke per acre of drain coal?

A. I don't know.

Q. You mean to say that it is not a fact, but simply that you don't know?

A. ——.

Q. I am asking you whether there is or is not a greater tonnage of coke out of an acre of dip coal over an acre of drain coal.

A. I don't know of any difference.

Q. Now, Mr. Shipley, you have in your allotment of surface lying between the two tracts cut off the lower end of the tract and given it to the Parkhill tract. Well, if you were going to buy the Parkhill tract, is that where you would prefer your houses to be?

A. Yes; if it was all the surface that I had.

Q. Wouldn't prefer to have your surface all on the same side of the track?

A. Oh, well, if you had the surface.

Q. Would it not be more convenient and economical in the management of the works to have all the surface land adjoining the tract on the same side of the railroad?

A. Well, the surface necessary——

Q. Why can't the water from the Hogsett and Wilson tract be drained as well into that run along the railroad track, Mr. Shipley, down where the track crosses the run as well as by cutting the

ditch straight down across the track into the run; what differ-
162 ence would it make?

A. To discharge the water at the pit mouth, the way I propose to do that, and then to get rid of the water, the party that owns that tract—how are they going to get into the stream without crossing somebody else's tract?

Q. Mr. Shipley, if you can get your water pumped out of the mines into the run, then the land on the other side wouldn't be necessary or convenient for the Hogsett and Wilson tract?

A. Only for the engine.

Q. And if you have your grade of the mines sufficient to overcome the friction of the shive you wouldn't need it for the engine, either, would you?

A. Well, if that could be done, as a matter of course, and overcome.

Q. In that view of the case, if it wasn't necessary to the Hogsett and Wilson tract for draining purposes, what would be the proper way to divide the surface between the Parkhill tract and the Hogsett and Wilson tract?

A. ——.

Q. Assuming that we have overcome this difference.

A. Why, you would have to have a portion of the surface.

Q. Then, in other words, the Hogsett and Wilson ought to have that ten acres?

A. I think it should go with that.

Q. Is there not a switch of Rainey's crosses a part of this ten-acre tract?

A. Yes, sir; I located it there.

Question by Mr. DICKEY: Does Rainey own that farm?

A. Yes, sir; he owns that.

163 Question by Mr. BURGWIN: Mr. Shipley, would not the piece of that ten-acre tract on the west side of the railroad be the proper place to locate a siding for the operation of the Parkhill piece for waste room?

A. O, I wouldn't think so.

Q. Where would — put your siding for waste room?

A. We could make a connection right below the switch.

Q. Would it not be more convenient for the operation of the Parkhill tract to have the switch in that part of the ten acres, so that you could drop down your empties in front of the ovens?

A. I think you could drop them down the way I have made the division.

Q. Don't you have to run them up grade?

A. No, sir.

Redirect by Mr. DICKEY:

Q. I wish you — state about what position the run occupies here with reference to the railroad on the west side of the ten-acre tract.

A. The run — the ten-acre tract from the south between the main line of the railroad and the switch track northerly to the

switch, then to the main line, passes north between the tracks to about the end of the first line on the west, then passes on north to a point equidistant between the tracks and crosses the switch track within one hundred feet of the north line of the ten-acre tract.

FRANK R. BRADFORD, being duly sworn according to law, testifies as follows:

Q. Where do you reside?
164 A. Connellsville.
Q. What has been your business?
A. Superintendent of coke works.
Q. How long have you been engaged in that business?
A. Ten years.
Q. Where have you been engaged?
A. I have been with the Youngstown Coke Company for three years, and now with the Port Royal Coal and Coke Company, and with two or three other firms.
Q. In the Connellsville region?
A. Yes, sir.
Q. Are you familiar with this coal that is the subject of partition?
A. No, sir; I don't know that I am.
Q. Have you examined this coal?
A. Yes, sir. I have been on the Parkhill and the Hogsett and Wilson tracts, but I never worked any.
Q. Have you examined them recently?
A. Yes, sir. I went on the ground about a month ago.
Q. Can you state what — the relative value of the Parkhill coal and the Hogsett and Wilson tract, selling them by the acre?
A. You mean if I wanted to invest?
Q. No. I asked you what the relative values of these two tracts of land is in the market. What is the fair value of these two tracts in the market?
A. Well, I don't know; it would depend a great deal upon whether a man would want the property or not.
Q. Well, my question is this: I don't care what the coal may be worth; what I want to know is what the difference in value
165 is of the two tracts to a party buying coal. What would be a fair difference in value between the two?
A. Well, if I was offered the choice I would make two hundred dollars difference between the Parkhill coal and the Hogsett and Wilson coal.
Q. By the acre?
A. Yes, sir.
Q. Well, would there be that difference in it to the party buying in the market?
A. Yes, sir. I consider there would.

Cross-examined by Mr. BURGWIN:

Q. Where are you in business?
A. With the Port Royal Coal and Coke Company.

Q. Where is that?

A. It is about five miles above West Newton, on the Youghiogheny river, and about twenty-five miles below Connellsville.

Q. You were engineer some time for W. J. Rainey?

A. I worked for him several times; yes, sir.

Q. It was at his request you came here?

A. Yes, sir.

Q. Is he connected with the Port Royal coke works?

A. No, sir.

Q. What experience have you had in the selling prices of coal land in the neighborhood?

A. I never sold any.

Q. Buy any?

A. No, sir.

Q. Ever have anything to do with the buying and selling of coal?

A. No, sir.

166 Q. Do you know what this coal would sell for if put up for sale?

A. No, sir; I don't know that I do.

Redirect:

Q. On what do you base your opinion that the Parkhill tract would be worth $200 more than the Hogsett and Wilson?

A. The expense of working the Hogsett and Wilson.

Recross-examined:

Q. Do you know whether or not operators in buying coal tracts similarly situated to these two make a difference in the buying of coal?

A. I would if I were buying it.

Q. You don't know what it would be worth in the market to others?

A. No, sir; that would be a question I could not answer.

Adjourned to meet Tuesday, May first, 1888, at ten a. m.

SAMUEL S. BROWN *et al.* *vs.* JOHN H. SHOENBERGER *et al.* } No. 18. November Term, 1887. In Equity.

MAY FIRST, 1888.

Parties met and adjourned to meet at two p. m.

MAY FIRST—two p. m.

Parties met.

Present: C. Hasbrouck, Esq., master; C. C. Dickey, Esq., counsel for defendant-, and G. C. Burgwin, Esq., counsel for plaintiff-.

ARTHUR W. BLISS, being duly sworn according to law in behalf of defendants, testified as follows:

Q. Where do you reside, Mr. Bliss?
A. Uniontown.
Q. What is your business?
A. Coke business.
167 Q. How long have you been in the coke business?
A. About twelve years.
Q. Have you been engaged in the manufacture of coke in the Connellsville region?
A. Yes, sir.
Q. Please state what part of the business you have conducted with reference to mining and manufacture of coke.
A. I have had active charge over all the work connected with the manufacture of coke.
Q. Whereabouts?
A. South of Uniontown. First at Dunbar furnace, afterwards both south and north of Uniontown: have works at Fairchance, Oliphant, and Percy.
Q. You have been superintending the mining and manufacturing of coal and coke?
A. Yes, sir; personal supervision.
Q. Are you at present engaged at that?
A. Yes, sir.
Q. Are you acquainted with the relative values of coal and coke in the Connellsville basin?
A. Yes, sir.
Q. Mr. Bliss, do you know the lands on Dickerson run, which are the subject of partition?
A. Yes, sir.
Q. Have you made an examination of these lands with reference to their relative values?
A. I have been over the property.
Q. And have you had experience, sir, with coal lands in a measure similarly situated?
A. Very much; yes, sir; both self-draining and coal that has to be pumped, or under-water coal.
168 Q. Have you operated both of said classes of coal?
A. Yes, sir; for several years.
Q. Well, state whereabouts you have operated such coals.
A. Why, our works at Percy we worked with a slope there, and at Oliphant we work a slope; at Fairchance we have a drift, self-draining.
Q. Mr. Bliss, you stated you made an examination of the coal. Please state to the master what you found with reference to the tract known as the Parkhill tract and what your opinion is of its location and situation.
A. It is an unusually favorably located piece of coal; it is rather remarkable; I don't suppose there is another similar piece in the region, not to my knowledge, because it is all above water level,

self-draining, and very desirable location as to the railroad and the convenient location for ovens, sidings, &c.

Q. With a view to economically working the coal, I wish you would state what you found with reference to the Hogsett and Wilson coal.

A. It is under water, all of it; it would have to be worked by shaft or slope.

Q. Now, sir, from your knowledge of coal lands in that region and from your experience in mining both kinds of coal, I wish you would state to the master what, in your judgment, is the relative values of the Parkhill coal and the Hogsett and Wilson coal.

A. I think that the difference in value—in the location of this coal, being above water level and having all the advantages
169 that it has—that the difference in acreage would make the relative pieces of coal about the same value. In my mind, if I had to choose between the two and take either the smaller or larger piece, I would give preference to the smaller tract as an operator.

Q. Then am I to understand you that, taking each tract as a whole for the purpose of operating and getting out the coal, the pieces would be of equal value?

A. I would say that the difference in value in the smaller tract, possessing the advantages that it does, compensates for the difference in area, and, in my mind, the smaller tract—if I was the purchaser on a lump price for the two tracts, I would give preference to the smaller tract.

Q. You have spoken of conditions of the coke market. Please explain to the master what you mean by conditions of the coke market and how it affects the Parkhill coal.

A. There are some conditions of the coke market in which the Parkhill tract—I mean the Hogsett and Wilson tract—could not be worked at all, and there are no conditions of the coke market that we have ever had that the parties working the Parkhill tract could not clear expenses and pay for the coal in the operation of a tract like that.

Q. Why did you say that there is a condition of the market in which the Hogsett and Wilson tract could not be worked?

A. Because coke could be made on that other tract at a dollar a ton and on the Hogsett and Wilson it could not; on the Parkhill tract it could be made for a dollar and a liberal price realized for the cost of the coal.

Q. What are the conditions of the market and how often do they occur, about?

170 A. Well, it has occurred several times in my experience; we are facing it now. Our works, where we work by a slope, we can't get out whole in the present market; on the other tract we are still aboe- to make a little money and make the price of our coal. I consider the Hogsett and Wilson tract of coal in the same catalogue with our works at Percy and Oliphant; the conditions of mining would be exactly the same.

Q. Are you speaking from your own experience in giving the testimony?

A. Entirely.

Q. Mr. Bliss, I wish you wouls state to the master how the Hogsett and Wilson tract lies with reference to the pumping. I mean by that explain ti the master from what point the water would flow.

A. To the southeast part of the coal-field; to the line marked James Collins. The slope would have to follow the dip throughout; the water would follow you the entire distance.

Q. You mean that the water would follow the mining operations?

A. Yes, sir.

Q. Then do you mean you would be mining in water all the time?

A. Yes, sir.

Q. I will ask you whether, assuming the opening to be made upon the surface land common to both parties, there would be any way of evading that.

A. No, sir; no way at all on that tract.

Q. How far, then, would the pumps have to extend?

A. I mean by that, as far as I am acquainted with the surface and understanding, that there would have to be provision made to take the coal out of the water from the outset.

171 Q. Assuming now that the opening for the Hogsett and Wilson coal must be made upon the land held in common—somewhere upon the ten-acre tract in front of the Hogsett and Wilson tract (there is no other surface held in common between the parties and upon which an opening could be made)—I want you then to state to the master what disadvantage would be found with reference to the pumping of that coal and the mining of it.

A. You would have to contend with the water from the beginning and with all the expense attached thereto, being to destroy your pipes from the very start, and the operation would be similar throughout; in other words, you cannot rid yourself of the water during the mining of that coal.

Q. Would you be mining in water?

A. All the time.

Q. Would that entail any greater expense, that fact?

A. We consider it in our experience from 25% to 33% of all the operation; it costs that to every operator.

Q. Now, such being the case, would your pumps have to extend to the deepest point?

A. The pumps would have to follow your operations every day.

Q. Would the expense increase or diminish as you went toward the deepest point?

A. It would be constant and increasing with every foot.

Q. I wish you would state whether there would be any other disadvantage in the Hogsett and Wilson tract with reference to removing the ribs.

A. If the coal was mined in front and the ribs were so as to interfere with the surface, of course it would increase your water.

172 Q. Just explain that to the master.

A. In starting here on the ten-acre tract and mining right through and to the ribs it will largely increase the amount of water you have to contend with; to mine entirely to the rear and to leave your ribs standing it would be an additional expense on your rooms to leave your — out again; therefore it would be an additional expense to leave your ribs standing or to — them.

Q. Mr. Bliss, from your observation of these premises, I wish you to state what is likely to be the condition of the Hogsett and Wilson coal with reference to water in the coal.

A. At the beginning of the operations the coal is very shallow under the railroad, and the probabilities are that they will have a large quantity of water to contend with. The indications are at Mr. Rainey's, just at the beginning of the descent there towards the Hogsett and Wilson coal, that there are very considerable streams of surface water now pouring into the opening.

Q. That coal adjoins the Hogsett and Wilson?

A. Yes, sir; immediately adjoining.

Q, From your experience as a miner of coal and manufacturer of coke state whether there is any difference between the quality of drift coal in such a body as the Parkhill coal and the pump coal, such as the Hogsett and Wilson.

A. It is claimed that coal below water level is better, but our purchasers of coke don't recognize any difference. It sells for the same price as coal that comes from the deepest level.

Q. Does your experience in the manufacture of coke show you any difference?

173 A. No, sir; our coke is equally good at Fairchance with Oliphant or Percy.

Q. You find that at your own works?

A. Yes, sir.

Q. Mr. Bliss, is a body of coal like the Parkhill tract with a twenty-five-foot crop line around—what would be the proper condition of that coal inside the crop line?

A. Well, it varies according to locality. Where you have slopes and pump the coal—could not be worked out to the crop. Twenty-five feet is a liberal allowance under any circumstances. We have a piece of coal at Fairchance only eleven feet. Where the hill was quite flat and subject to some wash *and* we found from ten to fifteen feet covered the crop.

Q. On the Parkhill is twenty-five feet a sufficient allowance?

A. I think it is very liberal all round; it is a very abrupt hill.

Q. Mr. Bliss, returning now to shafting coal, is there no difference in the values of shafting coal or slope coal caused by the way in which that coal may lie with reference to the point of distribution? Explain that.

A. If you have a piece of coal that is under water level and the water can be discharged from your mine with a perpendicular outlet of fifty or sixty feet, it is a great deal cheaper that way.

Q. I understand, then, that it would make a difference?

A. I say that if you conduct your mining operations so as to dis-

charge your water from a shallow hole, it is, of course, a great deal cheaper than where you have a deep shaft or a long slope.
174 In one case, your pipe and expense is limited to the fixed place where the water drains to; in the other case, it is constant throughout according to the depth, and has to be carried as far as your operations go.

Q. Now, is there any possibility of mining the Hogsett and Wilson tract, having an opening upon the surface common to both parties, without carrying your pump?

A. There is not; the dip is away from you.

Q. To a purchaser in the market of one or both of these tracts of coal would the fact that the Hogsett and Wilson tract contained one hundred and forty-two acres and the Parkhill tract only eighty-six acres make any difference in estimating the value per acre?

A. Not to a person who understood all the conditions and had any experience in the business.

Q. But to one who had no experience in the business?

A. No, sir.

Q. Mr. Bliss, have you had experience in the location of shafts and machinery and in yards for coke works?

A. No, sir.

Q. Now, in order to mine the Hogsett and Wilson coal by the slope where should the opening be made and where should the engine be located in order to advantageously take out the coal—I mean upon the surface land common to both parties?

A. As near the centre as possible and on that tract; *it* suppose it would be about the lower end of the ten acres—somewhere in this neighborhood.

Q. Now, assuming the opening to be at the place suggested—at, say, the place marked pit mouth on the map—where, in that case, should the engine be located in order that the coal may be
175 taken out successfully?

A. Well, that depends on circumstances. It ought to be beyond your tippling arrangement. There is a small piece of land that I understand is held in common by these two parties that would afford ground for the location.

Q. I call your attention to the surface land shown on the map common to both parties and ask you to state what, in your judgment, would be the way to divide this surface land in order to be most advantageous to both pieces of coal.

A. Well, the land facing the front of each tract naturally belongs to these several tracts, both for the purpose of operating coke tracts. The land fronting along the railroad and the railroad front near the Hogsett and Wilson divided—well, I think the creek is about the line; the creek to this point—and then there is a short line, I believe, comes down between the two tracts. It would leave liberal room on both sides fronting on this Parkhill tract for enough ovens, and on the other side for it.

Q. On this ten-acre tract is it a fact that the creek is between the railroad and the line marked Rainey?

A. Yes, sir.

Q. I will ask you what disadvantage, if any, there would be to the Hogsett and Wilson tract if shut off from the creek in front of its opening.

A. Well, its water is an advantage, of course, in making coke, as you can't make coke without water; and as they would have to make connection with the creek, the natural division seems to be at that point. Of course the Hogsett and Wilson tract could be
176 operated without that piece of ground, with permission for water supply.

Q. Suppose that the water you testified to was not allotted to the Hogsett and Wilson, we should have to get permission to go on that?

A. Yes, sir.

Q. How would it be with reference to the deposit of ashes, assuming that the person owning the Hogsett and Wilson got front on the creek?

Q. It would render that ground more desirable.

A. Would the smaller strip you speak of be of any advantage to the Parkhill tract?

A. I think not; neither an advantage or a necessity. There would be only about—well, eighty ovens would be an extreme number to put on this Parkhill tract. Fifty would be sufficient in my judgment, not having any other coal to go to.

Q. Mr. Bliss, is there room enough for sidings for cars to operate the Parkhill coal, provided the division be made by the line running past the property of Alexander Hill, across from the Hogsett and Wilson tract to the Parkhill?

A. Yes, sir; abundant, every facility for parallel sidings.

Cross-examined by Mr. BURGWIN:

Q. Where are the mines you operate, Mr. Bliss?

A. At Percy, Oliphant, and Fairchance; geographically beginning at the south and coming towards the north.

Q. And have you operated there; how long?

A. We have operated at Percy; I think we bought Percy in 1878; I was at Dunbar furnace; we had the contract for making coke for two years before that, 1876 and 1877.

Q. Is Percy a pump mine?

177 A. Yes, sir; we have two pump mines.

Q. And the next one?

A. Oliphant; pump.

Q. And the third?

A. Kyle; self-draining. I am interested only in these places, not sole owner; in private ownership with Mr. George C. Marshall.

Q. And it is upon your experience in these three mines that you base your opinion that you have given to the master in this case as to the relative values of the two tracts of coal?

A. Yes, sir.

Q. That is the difference in dollars, in your opinion, between the two tracts of coal?

A. Well, if I was a purchaser I would give 33% more for self-draining coal of any value at all—that is, a small estimate of it. Our experience has been that.

Q. What, in your opinion, is the value of the Hogsett and Wilson tract containing 143 acres in the market in that location just as it stands without any improvements?

A. With the surface or without it?

Q. Without the surface.

A. I suppose it would be worth easily $400 an acre.

Q. Four hundred dollars?

A. Yes, sir.

Q. Then, what, in your opinion, is the value of the Parkhill tract in the market per acre?

A. I would give $600 for it sooner than $400 for the other to work it.

178 Q. Well, that is your experience of individual preference. I asked you if you have sufficient information to base an opinion upon what the two tracts could command in the market to-day as they stand.

A. I suppose that the coal would not be bought for $600 an acre, and therefore would command $600 or more—the eighty-six-acre tract of coal.

Q. You think it would bring $600 in the market?

A. Yes, sir.

Q. Well, what do you think the Hogsett and Wilson tract would bring?

A. In that locality it ought to be worth $400.

Q. Would it not bring that, probably?

A. I think not; not with coal as favorably located in the market for sale.

Q. In fixing these values upon the two tracts of coal, I understand you to have said in your testimony-in-chief that you assumed that the Hogsett and Wilson tract is all pump coal and the Parkhill all drain coal?

A. Well, the Parkhill coal is practically self-draining. There is one corner next to the Rainey ovens that would require some little lift to get the coal into the ovens, but the coal, I think, would drain, with the exception of an acre or two in that corner, into the run.

Q. Well, then, with the exception of that acre or two, will——

A. Only that extreme corner, I suppose. Without having a compass and not knowing the exact dip—you know the dip varies—I wouldn't say positively as to that, but this field of coal here I would say would be all above water level.

A. All except an acre or two?

179 A. An acre or two in that corner. I went into that mine and I neglected to ask that question, but I suppose from the mine having been dry and not having to be pumped I didn't ask the question whether that was below the creek bed. We went in a considerable distance. They were working there towards the other side of the hill—the north side of the hill.

Q. You are speaking of Rainey's pit mouth?

A. That is the only opening in the coal.

Q. Do you know of any sales of coal similarly situated to these two tracts in this neighborhood recently?

A. Why, I believe—no, sir; not recently.

Q. Then your opinion of the difference in the values of these two tracts of coal is based on your experience and observation of the relative cost of operating dip coal and self-draining coal, and as had been shown in the two classes of mines operated by you?

A. I have said that; yes, sir.

Q. That is correct, is it?

A. Yes, sir; my information is entirely practical.

Q. What is the grade of the Fairchance mine?

A. We don't work on the greatest dip there. It is peculiarly located. I cannot explain it, only that the water runs out at the pit mouth, but we don't work there on the actual dip of the coal.

Q. That is, the self-draining coal?

A. Self-draining coal—Fairchance; yes, sir. The dip of the coal at Oliphant varies from five to eight feet to the hundred. The slope is irregular towards the bottom. At a depth of 700 feet it
180 flattens off probably four feet to the hundred. At Percy the dip is pretty uniform, about eight feet—between seven and eight feet to the hundred.

Q. What does the difference in grade of a pump mine make in the cost of the operation?

A. The grade is to your advantage sometimes in getting your cars back; the difficulty is, you know, in water force. You have to have three sets of pipes—steam supply, steam discharge, and water discharge.

Q. What are the elements in the items that go to make up the thirty-three per cent. difference in the cost of the manufacture of coke as made at the different mines?

A. Well, a large item of the cost is machinery necessary to hoist.

Q. How much of the thirty-three per cent. does that amount to?

A. Well, it is probably 10% of the whole thing in an investment of $10,000; and, then, another item, and a very considerable one, is the pumps. The pumps have to be enlarged and increased, and yet don't increase at all as to the cubical inch.

Q. How much of the 33% does that amount to?

A. Well, I suppose that the investment to start with would probably in a drift mine, would be 15% to start with. As your mine gets deeper you have to have double turn, work night and day, Sunday and every other day, whether you have a strike or not.

Q. The double turn, for what part of your force?

A. For the pumping and hoisting, of course, only through the day; but the pumping of that mine after it is three years old is a twenty-four hours job.

Q. Now, I believe we have 25%?

A. No; I said 15%.

181 Q. What represents the remainder of that?

A. The constant charge of additional hands and the large

expense of pipes which are so destructible; the sulphur water becomes in summer time nearly sulphuric acid. We have an expense at Oliphant (130 ovens) of $500 a month which we don't have at all at Fairchance; that item of it represents in repairs to pumps, in new pipes for steam and new pipes for water discharge, repairs to boilers, and every item *every item* connected with a drift mine.

Q. And how much of the per cent. does that amount to?

A. It is 33% by actual, practical operation between the two properties; you make coke 33% cheaper; we don't divide it.

Q. Then the pumps and the machinery represent 15% of the difference?

A. And the remainder of this represents the 33 %.

Q. Let us separate them as far as we can. I would like to understand this. I want to know if you can give us what differences go to make up that 33 %; can you itemize the things to any extent?

A. Well, it varies according to your operation and according to the facts involved. You have, for instance, in —during three months with the pump, you have the expense to be charged for idleness in three months, pumping your mine, mending your pipes; while you are idle it is charged against the operation of other months.

Q. Well, now, if we can't seperate it accurately, just state, in you can, what the actual expenses are without going—what the expenses are at Oliphant you don't have at the Fairchance mines—what go to make that up.

182 A. I don't think that is a fair question.

This question objected to by counsel for defendant- as irrelevant and not cross-examination, and also as tending to make witness expose his private business.

A. I refuse to answer that question because it does not effect the fact that I said the difference is 33%.

Q. I ask the witness what goes to make up the remaining per cent. of the 33%.

A. The constant expenses required to operate such a plant as against a necessity that don't exist in the other, composed of pumps, boilers, hoisting apparatus of every kind, will make as I stated; not actually referred to in the yearly account, which you are at liberty to examine on our books.

Q. The cost of the machinery and the pumps is 15% of the 33%, and the cost of the — necessary in the pump coal and not in the drain coal constitutes the remaining 18%?

A. You have it exactly.

Q. Now, I wish you would give us what salaries are necessary in the pump coal not necessary in the drain coal.

A. To operate a plant of eighty-six acres self-draining coal you would need no engineer. That's a salary of $75 per month. A competent engineer gets from $50 to $75 a month. You need a fireman; you need a pumper, two pumpers after three years of operation. You need a competent machinist, according to the views of the operator. We have to have *to* one. You need a fire boss. You need a rope-rider. You need a more experienced and

higher salaried pit boss. These are all items that we haven't got at Fairchance that we have at Oliphant. Sometimes you need two firemen instead of one.

183 Q. What's their average pay?

A. They average $2.00 a day. Ordinarily a pit boss gets $3.00 a day and what we call found.

Q. How much of the percentage have we left now for the remainder of the equipments?

A. I say that depends upon the output of the coal and the condition of the market, whether you run full or not. Now, your pumps and boilers and salaries have to be maintained whether you are mining, whether your men are working or not. All your pipes are very destructible; everything has to be replaced.

Q. What would be the cost of a plant necessary, in your opinion, to operate the Hogsett and Wilson tract successfully and economically?

A. What do you mean by a plant?

Q. I mean all the items, all the things, machinery and equipments, you have spoken of as necessary for the mining of a pump mine over a drift mine.

A. Do you mean the actual difference?

Q. Yes; what would be the difference in the cost of the plant?

A. The cost of the machinery, boilers, pumps, pipes, and engines to run the Hogsett and Wilson tract will put your ovens in the Parkhill tract.

Q. How many ovens?

A. Build you eighty ovens.

Q. That is as near as you can come to it?

A. That is pretty nearly exact. I happen to have bid for two plants under exactly the same circumstances.

Q. Well, put it dollars.

184 A. I won't do it, because it varies according to the time you operate. I could start that plant for $10,000 now and that $10,000 would build you and equip you 50 ovens. On the other place, the Hogsett and Wilson tract, you won't have your ovens.

Q. What would that equipment of the eighty ovens consist of?

A. Complete sidings, iron on top, pipes, and everything ready to go into operation.

Q. Mules?

A. No.

Q. That is not part of the equipment?

A. No; it is part of your equipment after you have started, but then your mule is destructible.

Q. How much side track do you allow in this estimate?

A. Well, the side tracks are not generally considered. The side tracks are sometimes furnished by the railroad company, generally furnished by the railroads for their own convenience in nearly all instances. The tracks in front of the ovens belong to the property and are included in that estimate.

Q. What is the usual number of ovens constructed to the acre?

A. Well, in most of the operations your ovens are built two to the acre. It is not considered desirable to start as low as an oven to the acre.

Q. What do you mean by starting?

A. In commencing; for instance, in starting an operation like that I wouldn't consider it advisable to erect 86 ovens to an 86-acre tract. I would consider that fifty would be sufficient on that eighty-six-acre tract without any coal immediately adjoining to go to.

185 Q. Isn't it the usual proportion considered by coke operators to be proper for the operation—successful operation—of the coke plant one oven to the acre?

A. No, sir; that is considered very low. It gives you a very short life to your plant.

Q. What is the life of a plant?

A. 100 ovens use ten acres a year; 100 acres would last ten years.

Q. Is that what you mean by speaking of the life of a plant?

A. Yes, sir.

Q. Then, with fifty acres for the Parkhill tract, how long would it take to work out the tract?

A. Fifty ovens would work out about five acres a year; that would be seventeen or eighteen years.

Q. How long do coke ovens last?

A. Your repairs are constant. The ovens are being repaired every day. They require very little repairing for the first two or three years; after that the repairs vary, sometimes on top, sometimes in front. It is a continued item in your monthly account.

Q. The amount of repairs increases with age?

A. Yes, sir; in the fire-brick.

Q. Well, is there and can you tell us the average period of existence of a coke-oven plant?

A. That would depend upon the amount of cost attached to the ovens; — vary according to that; as I tell you, the ovens are kept up all the time in good condition, or in condition at least so that they make good coke as well as in new ovens. There is a little bit more loss from air, of course, in old ovens.

Q. What is the length of each oven? How far would your fifty ovens reach?

186 A. Why, about—a little over seven hundred feet; fourteen feet is generally the way the ovens are laid out now; about twelve feet in diameter.

Q. How much empty-car siding would you need for a plant of that size?

A. You wouldn't need any at all if the railroad provides the necessary amount, except in front of the ovens. We have run ten years at Percy, and we have only one siding; we have no parallel siding.

Q. You have just the one siding?

A. Just the one side.

Q. How long is the coke plant?

A. Sixty-two ovens. We have a siding for the coke ovens just

the length of the ovens exactly. It is not as long as the ovens, because part of the ovens are double. It is only about four hundred feet, I think, and sixty-two ovens.

Q. That is for loading?

A. That is for loading.

Q. How much siding is there at the other end?

A. Nothing at all; the connection is just below the ovens.

Q. Well, you speak of some siding being constructed by the railroad?

A. I said when they did; why, we have siding above the ovens; we have no additional siding for our coke ovens at all.

Q. I mean to ask you how long does that track extend; would you place the track in front of the ovens?

A. Well, I suppose it is about seven hundred feet altogether; not over seven hundred feet; seven or eight hundred feet. The part of it used for the coke is just in front of the ovens; the
187 other is in front of the tipple.

Q. Which way do you drop your empties?

A. Down grade.

Q. Down grade from the upper end of your ovens?

A. The coke cars are put in from below; they stand our coal cars above and drop them down; we have no difficulty there.

Q. Then do I understand you that the railroad run the cars in front of the ovens, stand till loaded, and then pull out?

A. Yes, sir; they do.

Q. Isn't it an advantage to have a siding extending above the coke plants so that you can run your empties and drop them down?

A. Convenience, but not necessity. We haven't it at any of our three works. Our cars are all placed uphill at Oliphant and Percy and placed down hill at Kyle, but placed in front of the ovens at all three places. We have an additional siding at Oliphant; that is away from the ovens, away down on the railroad, simply for standing empties or loads on, but the cars have to be moved by the railroad engine.

Q. I wish you would locate if you can, Mr. Bliss, on the map, where you would construct your plant of fifty ovens.

A. Along the hillside in front of the property adjacent to the railroad.

Q. Where would you put the upper end of the ovens?

A. That would depend. I wouldn't put them within three hundred feet of the Alex. Hill line.

Q. Do you mean by that the upper end of the surface, whereever it might be?

A. I understand the dip—grade—is this way: come in here
188 and put your ovens along here.

Q. Well, is your answer supposed to refer to this land, or is it a general answer?

A. It is a natural location of the ground. Anybody, I should think, would do it in that way.

Q. Assuming that this would be the property line, there would

be sufficient room for fifty ovens, beginning at a point 300 feet from the Alex. Hill line in a direction north therefrom?

A. Yes, sir.

Q. Well, if you had your location on that ground irrespective of the Alexander Hill line where would you put your ovens?

A. I wouldn't change it.

Q. Assuming that the elevation of the coal, the desirable elevation of the coal, would be at least three hundred feet from this side of the property line, which — nearly the same as this line, it would begin at least 300 feet on this side of the property, what would be the proper elevation of the coke ovens about the railroad?

A. About from four to six feet would be desirable.

Q. What would be the height to which you would have to get the coal to have it in position to properly and economically fill the ovens?

A. About ten feet over that if the coal was charged from the cars.

Q. What would be the total height *than* that you would want?

A. We operate at Fairchance on about eleven feet above our yard. We charge direct from cars as they do in several places. The most important question would be the four to six or seven feet above the railroad; the other question would be determined by the loca-
189 tion of your coal. If the coal was of a sufficient height on your hillside to admit your larry you would put in your larry instead of charging from your cars.

Q. Mr. Bliss, would not the railroad be a good place to divide that surface land, the two tracts that you said the creek would divide very nicely?

A. Why, I think the panhandle would be a bone of contention.

Q. But presuming there was no contention.

A. I certainly would divide the surface by a straight line. I think it would be a very unreasonable man who would leave that horn attached to this when it was naturally opposite this tract. This land is naturally attached to that, and the natural division would be to make your lines as straight as possible. To the Hogsett and Wilson this land would be more desirable to them than the parties that may own this Parkhill tract.

Q. Why will it be more desirable to that tract, Mr. Bliss? Why will it be more desirable than to the Hogsett and Wilson tract?

A. The ground is limited here, and every foot is desirable. There is abundance of room by arrangement with either party to commence right there on this grade and keep the extreme line of the property next to Mr. Rainey down to this point. I consider there is abundance of room for that siding to——

Q. You mean to where the track crosses the Rainey line and leave it where it properly belongs?

A. If I was the owner. I think the Wilson tract belongs to it.

Q. You cannot do that without the consent of the railroad?

A. No, sir.

Q. Would not that panhandle be the proper place or good place to locate waste car siding?

190 A. No, sir; if this here land was sold to an independent party and a second party on this and a third party on this—the Rainey tract—it would be interefering directly between the three under any circumstances I would suppose.

Q. You think the panhandle should properly belong to the——

A. To the Hogsett and Wilson.

Q. Do I understand you that the panhandle ought to go with the Hogsett and Wilson so as to enable them to get water from the run for the manufacture of coke and to discharge their waste water from the mines into it; those are your reasons?

A. For the convenience attached to coke operation in giving them that much more front to the property.

Q. Well, if they have the same amount of surface land of the same side of the railroad and have the facilities for drainage and operating, why should it not be better for the Hogsett and Wilson tract to have that surface on the same side of the railroad?

A. I say, of course, it would be more desirable, but under no circumstances could this panhandle be attached to the Parkhill tract, but if by moving the road it could be directly attached to the balance of the Hogsett and Wilson tract it could be used, as the railroad exists, in the way mentioned.

Q. In your opinion, then, that panhandle is of no use to the Parkhill tract?

A. None that I can see, sir, at all, and not necessary in its dependent operation.

Q. Why do you draw a—what do you mean by that?

A. How do you mean?

Q. You say as it exists and not as it is.

191 A. As it is located it would have no necessity or bearing on the Parkhill tract, and by virtue of its very location it is inaccessible.

Q. Isn't it the Rainey switch that constitutes its inaccessibility?

A. Well, I didn't look at that. Is the Rainey switch there? To leave the land as I say, since it is a question of amicable division of the two tracts, I say without any question about this land in dispute the panhandle would naturally belong to the Hogsett and Wilson tract. I can't make it any plainer.

Q. I would like to ask you to explain your answer of a few moments ago. You said the panhandle was inaccessible to the Parkhill tract. I asked what the inaccessibility consisted of and, as I suggested, was it the Rainey switch.

A. It would be, by virtue of its location, an interference with the operation.

Q. By the panhandle you mean the strip of surface lying between the main track and the line of the Joseph Hare tract?

A. Yes, sir.

Q. Is ir or is it not a disadvantage to have your surface land used in operating your coke plant divided by the main line of a railroad?

A. Well, it is generally an advantage if the railroad is in front of your ovens.

Q. Would you prefer to have your surface divided by a railroad or would you prefer to have your surface for the operation all on one side if practicable?

A. It is best to have your surface together. That is exactly what I meant, that that panhandle could be attached to the Wil-
192 son tract by moving the railroad a very little way.

Q. Then your testimony as to the proper division of the surface land is based upon the fact that the main line of the P., McK. & Y. can be and will be located on the line dividing the Rainey tract and the Joseph Hare tract from the surface land which is the subject of partition?

A. I said that would be very desirable. It would be, in my mind, more naturally joined to the Hogsett and Wilson tract than to the other.

Q. What would you do with the panhandle besides drain across it their water from the mines and draw water from the stream to manufacture their coke?

A. My first effort, if I owned the Hogsett and Wilson tract of coal, would be to get the railroad——

Q. Yes; but what would you want to do with the panhandle besides these two?

A. That would be the only use that the balance of the ground would be in that connection.

Q. Well, I mean for what part of the plant would that be desirable?

A. Give you that much more ground for work around your ovens. The hillside at that point is narrower on that side, on the right, than it is on the Hogsett and Wilson side, which would be another consideration for parties to allow. The hillside comes closer to the railroad all along here than it does on this side; therefore, if there is any difference at all in the facts, I would say that that strip of land ought to go with the Hogsett and Wilson tract.

Q. I understand you to say that there is more level ground
193 on the west side of the railroad than on the east side.

A. From my calculation there is more level ground on the west side between the railroad and the foot-hills than there is between the railroad and the foot-hills on the east side.

Q. That is one of the elements which go to make you decide that the panhandle should go with the Hogsett and Wilson tract?

A. That is a very important element. It would form one of the numerous elements, I should think.

Q. What sales of coal do you know of in this immediate neighborhood, Mr. Bliss, in the Connellsville coal region?

A. I believe that there has been no sales for five years, with the ovens attached, under $700 per acre.

Q. Without ovens, I mean.

A. The last sale of coal was about three weeks ago. It was five or six miles from any railroad, in the rear of the Fairchance mines, and the parties told me that sold the coal that they got better than of what remained of it, and it was not drain coal. That is the

last I know of, and I don't state that as a fact, either, as the man told me.

Q. What other sales do you know of—what was the next sale before that?

A. The next sale before that was the Strickler sale at Mount Pleasant. That was sold with ovens attached, and there was no acreage price. Coal has been offered, I know, there for $400, not draining coal.

Q. Is there any coal in that neighborhood offered which is self-draining coal?

A. There isn't any of that kind there, not within six miles of Uniontown, either north or south.

194 Q. What is the height of the cropping of the coal in your self-draining mine ab-ve the bottom of the ovens?

A. Well, at one place in the ovens it is about two feet below the top of the ovens. At the upper end it is about the same distance above the ovens. In that regard, of course, we cannot without additional — have a larry or else make a long slope to have the coke the additional height of seven feet to have a larry.

Q. What would the additional cost be?

A. Well, additional means of hauling up that slope, which would be a constant item of expense. We prefer to discharge direct from our wagons rather than go to that constant expense.

Q. Can you give me an estimate of what the expense would be—what the expense would go up to an acre?

A. Oh, well, of course, if you had sufficient from your own coal — rise in the real it would be no additional expense, except the expense of your first mining. You understand, for instance, if your coal was rising from you you would have to drive till you got the coal at sufficient elevation to get the height desired.

Q. Can you tell what the additional expense would be of getting the coal with the larries on this Parkhill tract?

A. In the Parkhill tract I think the coal would go to the top of an oven very easily. It would depend upon what part of the hillside the opening was made. Your opening for hauling wouldn't be a question of hauling your coal out. For instance, suppose the elevation was fifteen feet at the centre over the top of your ovens and at the south end it was only at the top of your ovens you wouldn't of necessity have to open your coal there.

195 Q. Where would you locate the pit mouth for the operation of the Hogsett and Wilson coal?

A. Well, I don't know exactly the dip of the coal. It depends altogether upon the dip of the coal. It is running south so many degrees. Ours is north so many degrees. I suppose the reverse it would be south forty or fifty—so many degrees.

Q. If you had to haul any of this coal up hill to get it into the larries would it make a difference in your estimate of the respective values of the two tracts of coal?

A. The inside operations would be just the same. The difference that they respect would be just the same. The mining operations inside would be no different. You would sometimes be up hill,

sometimes down hill in this tract. That would add nothing to the advantage or disadvantage of any tract?

Q. You base your relative values, then, upon the assumption, first, that the inside workings would be the same?

A. Yes, sir; the difference exists in the question of handling your water.

Q. That's the only difference?

A. That's the main difference, only in case you operate your slope down hill. In that case your main entry is the same in this case. Your mule power takes it right out to the top of your ovens. In the other case you have to have powerful machinery, increasing in power as you go to greater depth.

Q. Then, in your opinion, the expense connected with the getting of the Parkhill coal up to the height of the larries to charge the ovens——

A. I didn't say that. I said getting it to the main entry
196 for delivery inside the workings would be the same down in the mine. The delivery inside from one track to the other varies as I have said, one being slope and the other drift.

Q. You are assuming in this, then, that the Parkhill is all down hill on your main entry?

A. I am assuming; yes, sir. The location shows that it could be worked in that way.

Q. I am asking you what you assume in making your estimate part of the inside work would be uphill and part down.

A. A very small portion in the extreme eastern corner.

Q. An acre or two acres? Well, what would be the cost outside of the pit mouth to get it into the larries?

A. Well, that would depend altogether.

Q. You are assuming that you worked with larries; that is the usual way, is it not?

A. It is not the universal way, and it would not be necessary for a tract like that. I claim that the economical way is not to have a larry; we save two men a day by not having larries.

Q. Does not Mr. Rainey haul his coal up to get it into the larries?

A. He does.

Q. Presuming a similar haulage for the Parkhill tract, what would that cost?

A. You are presuming a haulage that does not exist. It requires a strong down —. He starts below the level of his ovens.

Q. How much below?

A. Probably the height of his ovens. As I told you early in my examination, I did not know whether that corner was above
197 the creek or not. If it is above the level of the creek it is a question. He has to use string to get his coal out—two mules or two horses or more—to haul his coal.

Q. Then you are entirely satisfied, after these suggestions have been made to you as to the relative values of the two tracts of coal, that the Parkhill tract is worth thirty-three per cent. more than the Hogsett and Wilson tract?

A. Well, I gave two different answers to that question. You ask, first, the value of the two tracts in the market. I told you my own candid opinion was that if the preference was given me to buy the two tracts at a lump figure I would take the Parkhill tract with the smaller acreage before I would take the Hogsett and Wilson tract. You observe that the difference in acreage is a little more than 33 % in point of operation without the similar conditions; why, I would say that there was a difference in the operation of 33 %; you see the difference that I make; it is two different statements exactly, entirely.

Q. Other than the items which you have given us, making the difference in the value of the two tracts 33 %, the operating expenses would be the same, would they not?

Q. The operating expenses for the same number of ovens to give you coal to your point of delivery inside would be the same from that point; the expense in the delivery line would be different, to say nothing of your pumping machinery.

Q. Well, you have given the items of which you have given us; would they or would they not be the same—the operating expenses of running your plant?

A. The expense of delivering your coal in the same number of ovens—50 or 60 or 70 ovens—inside to the point of delivery,
198 but from that point the expense differs and increases. You have in addition all the expense attached to the pumping—you have the additional expense of hauling. To make it plainer, suppose, for the sake of argument, that this was a deep ravine that would enable you to discharge your water, you would still have the increased expense of hauling that coal up this slope—this steep hill. The longer you talk the more you bring this to my mind. Another item I forgot to mention in addition to this is ventilation of that mine. I came very nearly overlooking the expense of ventilating that mine; ventilating does make that mine more expensive.

Q. Is there not a superintendent required for that mine as well as for the other?

A. The superintendent is generally necessary.

Q. What is the average pay of the superintendent?

A. That depends whether he is the owner or not; the pay of the superintendent is ordinarily $100 up to Tom Guffey's salary of $5,000.

Q. Is not a mine boss necessary to both mines?

A. Mine boss is necessary in both mines if you employ over ten miners.

Q. What is his average salary?

A. From sixty upwards to $150; sixty is the smallest I know of.

Q. A pit boss also is required?

A. A mine boss and a pit boss are the same thing, and the mine boss may be superintendent.

Q. And you have in both instances to employ a yard boss, have you not?

A. Well, generally.

199 Q. What's the average pay of the yard boss?
A. $1.25 to $2.25 we pay our yard boss; our men $1.25.

Redirect:

Q. Mr. Bliss, when you testified about 18 % and 15 %, is that the result of your own experience?
A. That is the result of my experience.
Q. When you speak of the net cost of the works, machinery for mining the Hogsett and Wilson coal being enough to build the ovens on the Parkhill tract, is that the result of actual experience?
A. Yes, sir.
Q. Referring to the surface land on the map, is there sufficient room for one or more parallel sidings for the Parkhill coal north of the Alexander Hill coal?
A. Yes, sir; all that would be necessary under any condition.
Q. Is there any self-draining coal for sale in the Connellsville coke region?
A. None that I know of.

FRANK R. BRADFORD, being recalled in behalf of defendant-, testifies as follows:

Q. Mr. Bradford, in your experience in the coke business have you had occasion to become conversant with the location of machinery, coke ovens, and yards for the manufacture of coal into coke?
A. Yes, sir.
Q. Have you made many locations yourself?
A. Yes, sir—that is, I worked under the engineer.
Q. You are familiar with the surface land in question and
200 made an examination of it?
A. Yes, sir.
Q. Look at the map and state what, in your judgment, would be the most advantageous piece to each of the respective tracts of coal.
A. There is a piece of land running between the railroad and the Joseph Hare tract that I can't see would be of any advantage to the Parkhill piece, but I think it would be advantageous to the Hogsett and Wilson coal.
Q. How would you then make the division of the surface land between the two tracts to the most advantage to the tracts respectively?
A. Well, the way the lines run now makes a very good division.
Q. What lines?
A. The Alexander Hill line; but there could be a division that would give this piece to the Parkhill tract.
Q. You mean by producing the line of the Parkhill tract till it would meet the railroad?
A. That is the other piece that I say would be of advantage to the Hogsett and Wilson coal—the panhandle.
Question by MASTER: Then the division might be made by the Alexander Hill line, or by a line running from the corner of the Joseph Hare tract to the railroad?
A. Yes, sir.

Q. Now, Mr. Bradford, you know the location of the creek between the Rainey line and the railroad?

A. Yes, sir.

Q. I wish you would state whether there is or is not any necessity for the Hogsett and Wilson tract to have access to the creek.

201 A. It is very important; I should think they have got to have some place to discharge their water, it naturally would have to flow into a water-course in their own property, and I should think it would be an advantage to that, and it also would be an advantage in having that creek along there carrying off rubbish and things of that kind that accumulate about coke ovens.

Q. Where would the engine for this Hogsett and Wilson tract be located?

A. I'd have to look; I was in this pit mouth here, I think; the coal runs about to this—there is the greatest dip, and it would have to be opened on the greatest dip and divided as nearly equal as possible—about where the pit mouth is marked on the map.

Q. Mr. Bradford, could the piece of land which we call the panhandle be of any use to the Parkhill tract?

A. I cannot see where it would be of any advantage.

Q. Not with respect to the question of one or more parellel sidings, would it be of any advantage to the Parkhill tract?

A. No, sir; there is plenty of room here to operate this Parkhill tract; figuring, say, an acre for an oven, that would be plenty for that amount of coal.

Q. Would there be sufficient room below the Alexander Hill tract for one of more parellel sidings?

A. I should think there would; there looks to be plenty in along here; the hills extend back pretty well here; it is a desirable place to locate ovens for the Parkhill tract.

Q. Supposing the Hogsett and Wilson coal be restricted to the land east of the railroad, would they be cramped for ovens or not?

202 A. Yes, sir; I would suppose I would consider that there is not any too much land.

Q. Mr. Bradford, I want to call your attention now to the question of value of this land. I ask you what advantage, in your judgment, the Parkhill tract possesses over the Hogsett and Wilson tending to give it value.

A. I worked a piece of coal something similar to that where we operated; we pulled out coal out with mules; used no larries; used our wagons for larries.

Q. Well, I wish you would state, from your examination of it, how it lies, taken as a whole, with reference to being in good situation.

A. I consider it a very fine piece of coal.

Q. I'll ask you as to its value in the Connellsville coke region.

A. I don't know of any such desirable piece of land.

Q. I'll ask you to state if there are any difficulties or disadvantages connected with the Hogsett and Wilson coal.

A. In the first place, you would have to erect a hoisting engine; all the coal is under water level.

Q. I want you to direct your attention now to the way in which this coal would have to be pumped. What have you to say with reference to that?

A. The water would all have to come out in front; you would have to follow up with your pump all the time.

Q. And would your miners be working in water?

A. Unless you keep it drained.

Q. Would your pumps have to be carried to the extreme end of the coal?

A. Yes, sir.

203 Q. I wish you would state whether there are two kinds of pump coal.

A. Yes, sir. If this coal drained the other way, and they could shaft here, say, fifty or sixty feet or even more, it could be operated a great deal cheaper than they could in following it right down; then they would be working against ribs.

Q. In addition to the pumping you would have the expense of hoisting, have you?

A. Yes, sir; you would have the additional expense of hoisting.

Q. I wish you would state whether there would be any disadvantage connected with the removing of the ribs in the Hogsett and Wilson tract.

A. Yes, sir; from what I know of this there is a good deal of this front very low, and there would have to be sufficient ribs left in here to retain the surface. All this surface water running in would naturally run right down on your founts. Say, for instance, you erect a plant to take fifteen years to work out—I believe that is what they have been assuming—this coal at that length of time would really cost more to dig out than the coal would be worth; you would have to go in and clean up.

Q. How much of the area of coal would have to be left for ribs in that coal?

A. Well, we generally leave about fifteen feet for the rib; probably dig out fourteen feet of coal. It depends a good deal upon the amount of surface we have got.

Q. Why do you say that the ribs would be worthless to take out?

A. Well, in one sense of the word, there is a great deal of failure whenever the hill gets to this slate that is over the coal;

204 there is generally more or less falling, and we go in and read up probably two or three feet all right, but——

Q. Are there any states of the market which would prevent the working of this coal successfully?

A. I don't think you could work it at the present state of the market.

Q. Could self-draining coal be worked at a profit?

A. Yes, sir.

Q. How far back would it be necessary to support the Hogsett and Wilson coal?

A. Well, it would take one hundred and fifty feet before it would be safe to draw out the ribs.

Q. Will you give us the items of expense which tend to increase the expense of mining the Hogsett and Wilson coal over the other coal?

A. Well, in the first place, you have to go and erect boilers.

Q. I am asking you to give the prices. Have you any objection to stating it? What has been your experience? Please state what the items are—the prices which increase the cost of mining the Hogsett and Wilson coal.

A. In the first place, I would have three boilers at a cost of $2,400; — of boilers would probably cost $1,000 apiece; the foundations and constructions, &c., would cost one thousand to two thousand more; plants similar to that cost $4,100; hoisting engine to take out coal, in the neighborhood of $400; well, it will take twenty-five hundred feet of line; I don't really think it practical to work that out with less line; I don't think they can carry it that distance; they would have to work with an air compressor; cost, $3,000;
205 well, then, your pipe lines to carry your air would probably cost $600; your discharge line would cost you $1,100; they would have to be renewed some half dozen times during the operation in case the sulphur water should eat them out; then for the first five years of the operation it will cost 1,500 dollars for your large pump to operate that, and then you have to follow up with a smaller pump.

Q. Now, before you come to these subsequent items of cost——

A. Well, I would consider it would cost $15,000 to put pumps, engines, and machinery to operate that piece of coal.

Q. Then, sir, proceed to state what would be the subsequent cost and give the items.

Q. For the first five years you might possibly operate that with two firemen—that is, a fireman day and night—that you would not need on this side; their salaries range from—it depends altogether upon what wages have been for that class of men; we would run about sixty dollars a month; after the first five years it would necessitate a man at night and one during the day to look after the pumps; it would also necessitate a master mechanic, which would cost $75 a month; there is a great many other expenses that I have had experience with that I cannot mention properly, but naturally come up, having so much machinery.

Q. Would there be any expense in renewing the machinery, pipes, &c.?

A. ——.

Q. What is the effect of the sulphur water?

A. It eats the pipes out very easily.

Q. Do you know of any expense for fire boss?

206 A. In case of a mine worked on a dip we always have to have a fire boss. The mines going in that direction that that does would be very liable to generate gases, and the law requires us to have a fire boss.

Q. Do you know of any other expenses connected with the Hogsett and Wilson tract?

A. Yes, sir. They would have to put in that mine what we call double entry, which can carry the air up one entry and down another. On the other side it would not be necessary. These entries are expensive.

Q. After your examination of the premises what is likely to be the condition of the Hogsett and Wilson coal with respect to water therein?

A. You will have a good bit of water to contend with.

Q. Did you examine any other?

Q. Yes, sir. I examined a place where they had dug down to the coal that is making a great deal of water.

Cross-examined by Mr. BURGWIN:

Q. Where was it that you saw this water?

A. On the Hare piece.

Q. You saw an excavation on the Hare tract. What was that hole?

A. Shaft sunk to the coal.

Q. How deep was it?

Q. I don't suppose more than fifteen feet. I cannot say just the depth of it.

Q. You saw some water in it?

A. Yes, sir.

Q. I wish you would state how much surface is necessary for the proper operation of the Hogsett and Wilson tract of 142 acres,
207 how much surface would be necessary.

A. Well, as a general rule, they erect about an oven to the acre of coal. It takes some 2,100 feet to build one hundred forty ovens.

Q. That is what you consider a necessity for the operation of the Hogsett and Wilson tract?

A. Well, there has to be room for sidings, room for houses. It is necessary to have houses for a plant like that.

Q. Well, for a tract of 142 acres of coal how much surface—how many acres of surface would you consider necessary?

A. I suppose twenty-five or thirty acres. I have known a great many to have more ovens and not near that amount of land.

Q. How much do you consider to the economical working of the Hogsett and Wilson coal?

A. I think, sir, a man would want twenty acres.

Q. Think that would be enough?

A. Yes, sir.

Q. You think you could get along with less?

A. Yes, sir

Q. And work the mines economically and properly?

A. Depends on how this land is located and the amount he would want.

Q. How many acres of surface for every acre of coal? You can give it in that way?

A. No, sir; there is nothing governs throughout the region, that I know of.

Q. Is the surface necessary for any purposes besides those which you have given us, in your opinion?

208 A. Well, the man wants surface necessary to get in his tracks for operating his ovens, and wants some place to dump his ashes, I think.

Q. What's the percentage of ash for an acre of coal?

A. I cannot tell you, sir.

Q. How much room do you need for the ashes of 142 acres?

A. That depends on how much you can get.

Q. How much do you need?

A. Some places, where they have 140 ovens, probably ten acres; some places sixty ovens, six or eight acres of surface.

Q. And that can be made sufficient to operate a coke plant economically and property?

A. Yes, sir; they have been able to operate with it.

Q. And make money?

A. Yes, sir.

Q. How much waste-car siding would you require for the operation of your 140 ovens?

A. In some cases they have no waste-car siding at all; the cars are taken in one day and taken out the same day; the loads are taken away before the empties are placed. Other places they have siding enough to hold a day's run of cars, and a day's run of cars would probably be about ten cars.

Q. That would be how many feet?

A. Thirty-three feet?

Q. Where would you put your waste-car siding to operate properly?

A. It isn't particular where you put your waste-car siding; put it in the most convenient place. I would want it above my ovens.

Q. Why above the ovens?

209 A. Why, when my loads are taken out my empties will drop down, so that I can have them convenient for to-morrow.

Q. That is the usual way to construct waste-car siding?

A. Yes, sir.

Q. ——.

A. Yes, sir.

Q. How many ovens have you got at Port Royal?

A. Sixty.

Q. How much waste-car siding?

A. Probable about a hundred cars. We load about sixty cars a day.

Q. Be about thirty-six feet?

A. Yes, sir; fully that much.

Q. Find it too much?

A. No, sir; we are handling three different kinds of coal—sometimes four—and we want cars for all the different kinds of coal.

It depends altogether upon the size of the coal plant to a very great extent.

Q. Is it necessary that a drift coal mine have a fire boss as well as a pump mine?

A. No, sir. We very seldom find gases above the water level.

Q. Can you or can you not tell whether you will need a fire boss until after you have got into operation?

A. Well, as soon as you start below water level you are liable to meet gases.

Q. But you may also find gases in a drift coal mine?

A. No, sir; I don't know of an explosion that occurred above water level.

Q. Don't you always have explosions when you find gas?

A. No, sir.

Q. Well, if you do have a fire boss from the fact that gases
210 exist on one of the tracts——

A. Yes, sir; that is one of the cases.

Q. You have also stated that one of the elements which make up the difference in the two tracts was that you have to leave the ribs in the dip coal; you also have to leave the ribs in the drain coal, don't you?

A. Not necessarily; no, sir.

Q. Don't leave any ribs in operating drain coal?

A. No, sir; as soon as I drove my mines I would take my ribs out.

Q. Are you operating drift coal or drain coal at the Port Royal mines?

A. Shaft mines.

Q. Why do you take the ribs out of drift mine and not out of the self-draining mine?

A. Because the water would drain right away from me. My idea in leaving the ribs standing in the Parkhill coal would be to protect the mine from surface water.

Q. How would ribs protect you from surface water?

A. If you drive out your mines and don't draw back your ribs your surface will stand; as soon as you pull your ribs back, down comes your surface.

Q. Well, if the owners of the coal were obliged to leave in sufficient support for the surface, would you then be able to draw the ribs in the same way out of the Parkhill tract?

A. If the owners of the surface would require us to leave sufficient you would have to leave them.

Q. Then the two tracts would be equal?

A. Yes, sir; you would have to lose about half your coal.

Q. Mr. Bradford, would the panhandle we have been speak-
211 ing of be a very desirable place for the Parkhill tract to put sidings on?

A. There is plenty of room for sidings to operate the Parkhill coal.

Q. Well, assuming that you started your line of ovens for the Parkhill tract at the Alexander Hill line and run north from that

with your line of ovens, would it not then be more desirable for that to have the panhandle?

A. No, sir; I don't see that it would.

Q. Where would you put it?

A. There is plenty of room to double your siding.

Q. If the surface land required in your line of ovens should begin at the Alexander Hill line and run north, would it not be more desirable, in view of what you have already said in regard to the waste-car siding, to have your waste-car siding on the panhandle?

A. There is very few construct it that way.

Q. Isn't that the way you do at Port Royal?

A. ——.

Q. There looks to be room enough there; you would want not over five or six feet cars at the outside?

Q. You would want about 300 to 400 feet?

A. Thirty feet along the cars; or, I take it, forty ovens take about seven or eight cars.

Q. What would the proper amount of waste-car siding be for that size tract; if you could get the surface, wouldn't you want about six hundred feet?

A. I don't see that there is the proper place to locate the ovens, in my opinion.

212 Q. Is the ground too low?

Q. The ground is too low to locate your ovens to get the proper height.

Q. Where would you locate your ovens?

A. It would depend upon the height of your coal, but from what I know that pit mouth is very nearly on a level, I should think, with the creek.

Q. If you can tell from the location of the ground, what is the point at which you start for the south line of your ovens? I wish you would mark it on the map, if you please.

A. On the red line that crosses the surface.

Q. And your testimony with regard to the division of the surface and the allottments of it has been with reference to that being the point of the location of the souther-most end of the line of eighty ovens?

A. Yes, sir.

Q. You stated, Mr. Bradford, that in the Hogsett and Wilson tract you would have to drive double entries for the purpose of air. Wouldn't you have to have air in the Parkhill tract?

A. Yes, sir.

Q. Would you not have to drive a double entry there?

A. You would run your entries right out to the crop.

Q. That is, assuming you had the right?

A. I am giving it as I would practically work it myself.

Q. Well, then, your testimony has been based upon the assumption that the owners would have the right to do with the surface as they thought necessary for the operation of the mines?

A. Yes, sir.

Q. And if they didn't own the surface, would that make an-
213 difference in your testimony?

A. It wouldn't in the expense of working the Wilson coal. There is a certain amount that you can't avoid.

Q. Wouldn't the double entries be an item?

A. Well, if you are not allowed to drive out here for air; but I think the law gives you the right to go out for air. You would not need the air in the Parkhill tract, because this tract wouldn't generate any gases.

Q. Can you tell that positively until after you have opened your mine?

A. The gaese have never been found above water level.

Q. You never found gas in self-draining coal?

A. No, sir.

Q. It isn't known?

A. Not that I know of.

Redirect:

Q. Assuming the right to cut out for air passages at any point that might be convenient, it would be just the same as if you owned the surface. Even if you did not own the surface your testimony would be the same?

A. Yes, sir.

Recross-examined:

Q. It would be the same thing in the Hogsett and Wilson tract?

A. You could not without shafting.

Q. You are assuming that you could not cut through the surface on the Hogsett and Wilson coal?

A. In driving the Hogsett and Wilson coal you have got to take a line right as near through the centre as possible. I claim that this Hogsett and Wilson tract can be operated with a slope
214 just as cheap as this can be operated to one point.

SAMUEL S. BROWN *et al.* *vs.* JOHN H. SHOENBERGER *et al.* } No. 18. November Term, 1887. In Equity.

MAY SECOND, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; G. C. Burgwin, Esq., for plaintiff-, and C. C. Dickey, Esq., for defendant-.

ABRAM LASH, being duly sworn in behalf of defendant-, testifies as follows:

Q. Mr. Lash, where do you reside?

A. I live at Martins' Ferry.

Q. What is your business, Mr. Lash?

A. Civil and mining engineer.

Q. How long has been your experience in engineering?

A. About thirty years.

Q. Have you been a coal-mining engineer?

A. I have done a great deal of work in coal mines.

Q. Have you had experience in the coal land in the Connellsville region?

A. Yes; to some extent. I have been working there for three or four years.

Q. Mr. Lash, have you been upon the lands which are the subject of partition in this case?

A. I have.

Q. Have you made surveys of the land?

A. Yes, sir.

215 Q. Have you examined the land with reference to their topographical features?

A. I have.

Q. Have you looked into the advantage and disadvantage of the location with reference to the topographical and water level?

A. Yes, sir; I have.

Q. What, in your judgment, is the advantage of the Parkhill tract with reference to mining the coal and converting it into coke—the commercial value of that tract?

Question objected to by Mr. Burgwin.

Counsel for defendant proposes to follow this evidence with corresponding evidence as to the Hogsett and Wilson tract.

Objection overruled.

Q. Mr. Lash, please answer my question.

A. The special advantages of that mine are in the drainage and ventilation and the cheapness by which the coal can be extracted.

Q. I ask you, with reference to that, whether the Parkhill coal would require any machinery to extract the coal.

A. No, sir; the principal part of that coal, as well as the water, will come out on its own gravity.

Q. From your experience in coal in the Connellsville region, how does the Parkhill coal compare with the other coal in point of situation?

A. As far as my knowledge goes in the Connellsville coke region, which I may say is rather limited in that immediate neighborhood, I have found no coal in that neighborhood so well situated as this coal for mining purposes; it may be converted very cheaply into coke.

216 Q. I wish you would proceed and state now what are the topographical features of the Hogsett and Wilson coal.

A. The disadvantage of the Hogsett and Wilson tract over the Parkhill tract is that the coal dips. You have to follow the dip and rise of the coal below the water level and you necessarily encounter the water; it will follow your openings as you proceed; in either case the water follows you; you have an up grade and you have to have machinery in order to take out the coal as well as the water.

Q. Assuming that the Hogsett and Wilson coal is to be mined upon a ten-acre tract, being the surface common to both parties, I

then ask you whether there is any method by which it can be mined to avoid having the water follow you.

A. No, sir; there would be none. You would be obliged to open on this line common to both tracts.

Q. Would it be necessary to carry your pumping apparatus to the rear of the Hogsett and Wilson coal?

A. As far in as you mine you must keep your pumps pumping right up to your works.

Q. Is there any other class of coal lying below water level with reference to the drainage? And, if so, explain what it is and explain its difference.

A. I don't clearly understand.

Q. I mean to ask you, with reference to the slope of this Hogsett and Wilson coal, whether the slope lies advantageously. Assuming the coal to be below water level, is not there any other way it would lie that would make it more convenient?

A. Yes, sir; this Hogsett and Wilson tract, instead of sloping to the southeast—the way you would have to mine it—by opening
217 on the front side of the coal dip in an opposite direction, and by sinking your shaft here the water flows to your pump.

Q. How is that pumping carried on—by what agent is it carried on—by what power?

A. Well, by steam power unless you get to so great a distance that the condensation of your steam is expensive and it would be necessary to use another agent.

Q. In your judgment as an engineer when you arrived at the rear or near the rear of the Hogsett and Wilson tract, could your pumping there be carried on by steam?

A. Well, it might be carried on by steam, but it would be most expensive; if the distance or one-half the distance—I don't know what I could say exactly where the limit would stop—compressed air would be used a little more advantageously.

Q. How would you mine the Hogsett and Wilson tract under the circumstances, assuming that you had to make your opening on the surface land common to both tracts?

A. I would mine by a slope.

Q. In that case where would be the opening of the slope?

A. From my observation I suppose the centre of this tract, as near as you can get.

Q. Where would you make the opening?

A. I would make it near the middle of the front, near the north end of the front of the surface land, near the centre of the ten-acre tract.

Q. In your judgment as a civil and mining engineer, what would be the proper way to divide the surface land common to these pieces of coal so as to be the most convenient division for each tract respectively?

218 A. I would think the natural boundary line here would be on the railroad until this point was reached in the ten acres from the north and near the Alexander Hill line, and then from that point it seems to me that this piece, this panhandle, to

the west of the main track would naturally go to this Hogsett and Wilson tract. I am mistaken; I mean I would give the surface in front of the Parkhill to the Parkhill and the rest I would give to the Hogsett and Wilson; I would divide the surface land beginning at the north end and following the line of the railroad until you strike the Alexander Hill line; then from that point run by the Alexander Hill line extended to the Parkhill tract; thence by the Parkhill tract to the southeast corner of the same; thence following the surface line on front of the Hogsett and Wilson tract and give the surface in front of the Hogsett and Wilson coal to it.

Q. Mr. Lash, do you mean by your answer that you would give all the surface south of the Alex. Hill line to the Hogsett and Wilson coal?

A. I do.

Q. Mr. Lash, have Messrs. Brown and Cochran coal works adjoining the Parkhill coal?

A. Yes, sir; I understand that is the name of these works.

Q. Did you go into these works?

A. I was in what is called the Nellie mines.

Q. Well, did you find any entries made in that mine into the Parkhill coal?

Objected to by counsel for plaintiff.

Question withdrawn.

Q. I'll ask you to state whether there is a passage from the
219 Nellie mine into the Parkhill coal.

A. Yes, sir; there is.

Q. Is that shown on the map?

A. Yes, sir; the red line marked near the western portion of the Parkhill tract shows the air courses as marked on the map.

Q. Mr. Lash, did you run around the Hogsett and Wilson tract so as to determine its area?

A. Yes, sir.

Q. By what notes did you make your survey?

A. I had a copy of the Hogsett and Wilson tract purchased by them from Hare, I think.

Q. Do you mean of the original deed?

A. Of the original deed of that tract; yes, sir.

Q. Now, in making that survey by the original notes, did you find any difference in the area and the area that is on this map?

A. Yes, sir.

Q. How much difference?

A. Well, the area of the original tract was 141.44 acres and twenty-two hundredths less than the area marked on the map.

Q. That is the area found by you in your survey?

A. Yes, sir.

Q. I request you to state the manner of survey made by you, and if there are any differences between the survey and the one shown by the map in evidence state what they are.

Q. My first step was to balance the survey and see whether it was perfect or nearly so and found it to be so. Then in looking at

the description in the deed, "Beginning at a stone in the Liberty road," first, we did not find any stone; "thence south 102.6
220 perches to a stone; thence along the line of land of the heir of A. M. Hill south 70½ degrees west 55.4 perches to a stone; thence by the land of James Collins." Well, my first step was to find where the Hill line referred to was; there are some trees not marked along their land; the line is indicated on this map. After determining the point on the ground where the Hill line is at the Collins line, northwesterly corner of the Wilson tract, then by measuring southwest on the western boundary line of the Collins tract (on this map is marked a white-oak stump) that stump I didn't reach; I had no evidence that a white-oak tree stood on that stump.

Q. And the general supposition was that, here being virtually the Hill line and being settled upon as being the point, you measured the distance here south to the monument beyond you; you would not be entitled to go to it if you had evidence that the stump was there?

A. I found no monument that I was satisfied was the monument. It may be true that that white-oak stump stood there. I didn't reach it by twenty-three feet, and, as a matter of necessity, I stopped short of it.

Q. What did you do then?

A. I had no evidence that this stump was the white-oak stump called for. I then run a line down here along the road—a line down this line here. I reached the road here near where the deed calls for it. I didn't strike the same point and my survey did not close upon this line. In order to reach it I would have had to go down to this oak stump here and would have been twenty-three feet further south; consequently I am twenty-three feet in a southerly direction here. I stopped twenty-three feet and closed the
221 survey. The distance, as I understand this map here, this twenty-three feet or about that, was added from this here to this point here. If you start at that point you are all right, but you can't reach the point here at southwest corner of this tract.

Q. Well, did you find that the survey made by you according to the old deed closed?

A. I stated that the closing was very close; it looked about three feet.

Q. Did you balance that survey on paper?

A. It was very close, I consider, for a tract as large as that, showing that the original survey had been very carefully made; it is simply a question as to whether you come down to these stumps here. The deed calls for the white-oak tree; if I had been satisfied that the white oak——

Question by MASTER:

Q. Did you find any stumps?

A. Well, I think they were both white-oak stumps.

Questions by Mr. DICKEY:

Q. Does the road shown at the south side of the Hogsett and Wilson coal come out to the corner?

A. No, sir; it turns to the south here.

Q. The original deed calls for that road?

A. No; not till we get to this road, and thence, they say, along stumps in the road.

Q. Mr. Lash, in mining that coal would it be necessary to leave a strip of coal alongside of the road in order to support the soil of the road?

A. I certainly think it would be, because the coal crop has no very great depth.

222 Q. In the survey which you found set down in the old deed, does it leave the strip of coal?

A. It would; yes, sir; it would come out into the road.

Q. About how much would it leave by the old survey?

A. Well, I don't think it would get any part of the road, unless down there in the Liberty road.

Q. Well, at the upper end, about what width of coal would it leave between the boundary of the survey and the road?

A. I can't say exactly at that end, because I know the road bears south of the line there.

Q. Well, do you know the average width?

A. Do you mean the line that represents the earth line?

Q. I mean the line of the original survey and the road.

A. Well, I don't think you would get any part of the road according to the original survey, unless some small portion of the road where it intersects the Liberty road.

Counsel for defendant- states that the purposes of the testimony is to show that the area of the Hogsett and Wilson coal is the area set forth in the deed for the same and in the bill, and not 142.66 acres as set forth in the draft exhibit January 19th, No. 1, and that the value of the Hogsett and Wilson tract is less by the value of an acre.

Objected to by counsel for plaintiff- as incompetent and irrelevant, because the testimony, if taken, contradicts the defendants' witnesses heretofore called, and also objected to because the map Exhibit No. 1 was made by the engineer of the defendants as well as the engineer of the plaintiffs, and was agreed upon as being correct

223 by the engineer of the defendant-, Charles Judd. Exhibit May second, 1888, No. 1, shown witness and is asked to state whether said draft substantially agrees with the survey made by him, and whether this draft was made by him.

A. The draft was not made by me.

Q. Does it correctly represent the survey made by you?

A. It seems to show it with reference to lines made by somebody else; I don't know where the lines where; I only speak of this survey here that I have already testified to.

Q. That is not an answer to the question. The question is, does

this draft represent correctly the survey just now testified to by you?

A. The red lines here represent very closely the survey made by myself and Mr. Shipley; this black line is understood to represent the line that runs to the oak stumps here; it isn't marked on here. I testified we stopped short of the stumps.

Q. ——.

A. ——.

Cross-examined by Mr. BURGWIN:

Q. What bill did you have in making that survey?

A. I had handed to me what purported to be a copy of the original deed; I haven't seen the bill since I have been in the city.

Q. You were handed a bill which was told you was a copy of the original deed, and from that you made the survey which resulted as you have testified?

A. Yes, sir.

Q. Practically, then, you took that paper and there was put upon the map, as testified, the lines as shown in that bill, and the area calculated from that; is that correct?

224 A. Yes, sir; the area was calculated from these lines.

Q. Well, practically, then, the plat was made from the lines in the deed?

A. Yes, sir; we run them on the ground in accordance with the description in the deed.

Q. Your running as in the deed made no difference in the lines. You simply took the lines of the bill and put them——

A. Yes, sir; the bill calls for a monument at that point, and we didn't find any, and therefore stopped at the distance.

Q. Did you make any inquiries for the monument?

A. Yes, sir.

Q. Of whom?

A. I don't know who it was. I was a stranger to those people. I sent for several parties there to inquire as to whether there had been a white-oak tree there; could not find any testimony that satisfied me at all of the fact.

Q. Who did you inquire of?

A. I inquired particularly of this man Collins, who owns land adjoining.

Q. Did you inquire of anybody else?

A. I don't remember.

Q. Did you ask them of they knew where the corner was of the tracts?

A. I did.

Q. Did you inquire of anybody else?

A. Well, yes, I inquired of Mr. Hill, who owns that neighborhood. He didn't know anything about it.

Q. Neither Mr. Collins or Mr. Hill could give you any information?

225 A. No, sir.

Q. They were the only two you inquired of?

A. That's all I remember.

Q. Then the only reason why the area is not correct as given in the map exhibit of January is because there were no acknowledgments?

A. I didn't say that that area is not correct according to the survey. I believe *to* to be so; but it simply encloses more land within the boundaries than the — would warrant, unless you found the monuments.

Q. Well, then, the reason why you think the area is one area and twenty-two hundredths less than that given on the map Exhibit One is because in your — as to whether the stump which you say is upon the ground is the stump called for?

A. It calls for a white oak I didn't find; neither did I find a stump, but south of it, and I had no evidence as to whether that was the white oak spoken of.

Q. That white-oak stump which I understand you to have said you followed for a distance?

A. Yes, sir; between the stumps. It was between the white oaks called for in the bill.

Q. You found the white-oak stump on the course?

A. Yes, sir; substantially upon the course, but twenty-two feet distant from my measurements.

Q. If that stump was the white oak called for in the deed, then there would have been no difference in the -reas?

A. ——.

Q. Then the areas would have been the same?

226 A. I presume they would have been very close. I would have had to lengthen that line, and I probably would have done it the same as he did.

Q. Did you endeavor to ascertain, by starting from that stump as the correct corner, whether or not the second stump given upon the map was correct?

A. The direction of the coal from the Collins line to this stump supposed to be upon the Collins line, and measuring this angle here you strike that stump. The direction is all right; the discrepancy is the distance; it was longer than the bill called for.

Q. Now, were the fences of these lines, with regard to these two stumps, did they or did they not recognize these stumps as corners?

A. I don't remember distinctly about the fences, except right on the southeast corner the line running from the stump to the white-oak stump would pass north of the fence, then cross it, and leave the fence on the right-hand side of the line.

Q. Well, was it not practically upon the line?

A. From my recollection, you come across the fence a few rods, perhaps 150 or 200 feet from this stump, then crossing the fence on the south side; just how close I don't remember. This stump or the fence is quite a distance north of it as well as south of it at this point. The road passes right along close to the stump.

Q. The fence on this line is substantially on the James Collins line?

A. Yes, sir; the fence is not straight; but it is substantially the same distance all the way through.

227 Q. How long were you surveying here on this ground which is the subject of partition?

A. I don't remember exactly how many days. I spent a part of two days on the Hogsett and Wilson tract, and probably the same time or a little more on the other.

Q. In whose employ were you, Mr. Lash?

A. Well, I was sent for—I received a telegram from W. J. Rainey that he had some surface lines to run at his own works. When I arrived there I met Mr. Shipley and he told me that he wanted me to assist him in a survey that he had to make.

Q. You were some two or three days making the survey?

A. Yes, sir; we were over two days, perhaps, on these two tracts.

Q. What survey did you make on the Parkhill tract?

A. We run the crop lines, this surface line between Mr. Rainey and the Hare piece and the Parkhill tract.

Q. When was that done?

A. I began there on April 3, 1888; then I was there a second time later than that. I didn't get fully completed and came up again.

Q. What lines did you run, if any, or surveys did you make here besides those of which you have testified?

A. Well, I did some work here for Mr. Hill—run a line for him not shown on this map.

Q. I mean in the coal and surface which is the subject of partition.

A. That was all, except to take some levels in the mine and run the crop line of this coal as I have already testified.

Q. In Mr. Rainey's mine?

A. Yes, sir; in W. J. Rainey's mine.

228 Q. Well, now, what surveys that you have made of the coal and surface in the —?

A. Well, I have made some measurements in what they call the Fort Hill coal works, some for Mr. Hill, as I have stated, and have been doing work for Mr. Rainey, and I was in the immediate neighborhood of Dawson.

Q. The work that you have done in the Connellsville region has been for Mr. Rainey at his works?

A. Principally for him; yes, sir.

Q. And your testimony as to the character of these two tracts of coal is based upon your experience in Mr. Rainey's works?

A. Yes, sir; and what I have seen in the neighborhood when making them.

Q. What experience have you had in the manufacture of coke?

A. I have had none in the manufacture of coke.

Q. What knowledge have you of the relative advantages and disadvantages of coal in the Connellsville region to be manufactured into coke?

A. Well, the inaccessibility of the coal——

Q. I am speaking now of your basis of information besides your

observation on these two tracts of coal for coking purposes in the Connellsville region.

A. I have not in the Connellsville region.

Q. Then your testimony with regard to the desirability of the Parkhill tract is based upon your knowledge of the coal within a mile of that spot?

A. Well, yes. I don't know of any tracts similarly situated.

Q. And you know of no other body of coal so favorably sit-
229 uated within that area of the Parkhill coal?

A. Not that I know of.

Q. Do you know all the coal in the area given?

A. I told you I went into the Nellie mine. I have been to some other openings in this direction; then I went up to the Cochran works where they are running by shaft. I simply know that the Parkhill tract is favorably located for taking the coal out. I don't know what you would do with the coke.

Q. Your testimony, then, is that for the purpose of getting the coal out to the surface the Parkhill tract is very favorably located?

A. Yes, sir; that is what I said.

Q. I wish, Mr. Lash, you would locate your entry for the operation of the Hogsett and Wilson tract; you have given us the pit mouth about the middle or a little north of the middle of the front of the coal. Now, starting from that point, in which direction would you run your entry?

A. You would want to run it in the greatest dip.

Q. Then your testimony is based on the assumption that you would open the coal on the Hogsett and Wilson coal a little to the north of the middle and run your entry thence to the greatest dip of the coal?

A. It requires to be run with the greatest dip of the coal in order to get the grade for carrying your cars back.

Q. Well, can't you tell; haven't you sufficient information of coal of this kind to tell how you would run your entries?

A. I think it would have to be run —; all the information I have is obtained in the Rainey mine; whereever you open this entry you would have to run with the greatest dip of the coal to get the grade.

230 Q. Why do you divide the lower part of the surface by the railro-d, Mr. Lash?

A. Well, simply because there is enough land here in front of the Parkhill tract accessible to the road to build your ovens, yard, and siding. I can't say how many ovens you would want there; I don't know how many ovens you would naturally put up.

Q. You don't know what the requirements are for the plants?

A. Not of my own knowledge; no, sir; just what I know from hearsay.

JULIUS C. SHIPLEY, recalled, testified in behalf of defendants as follows:

Q. Mr. Shipley, in the division proposed by you where the Alex. Hill line is the line between the two tracts of coal, would there be enough room adjacent to the Parkhill tract for one or more parellel sidings?

A. Oh, yes; I don't think there would be any trouble about sidings.

Q. Enough to accommodate the extra cars necessary for operating the Parkhill?

A. Yes, sir.

Q. Mr. Shipley, do you know of any self-draining coal at or near the railroad for sale in the Connellsville district?

A. I have been trying to think. I don't know of any coal that is lying directly on the railroad. I think that I know pieces of tracts; there is one tract that I know belongs to H. J. Brunot, that lies southwest of the railroad; part of that can be drained and part cannot be.

Q. I ask you if you knew of any coal similarly situated for sale in the Connellsville region.

A. I know one about three miles—three and a half maybe;
231 it lies on the southeast outcrop.

Q. Is that self-draining?

A. Not altogether; no, sir.

Cross-examined by Mr. BURGWIN:

Q. Do you know of any coal in the Connellsville region which is for sale similarly situated to the Parkhill tract?

A. Well, I don't know really of any coal that is away from the railroad.

Q. Whether on or away from the railroad?

A. Well, there is the Paul farm; I don't know whether it is for sale. I understand it is. That is all drainage except 31 acres.

Q. Where is that?

A. That is situate near —— mine on the Pittsburgh, Virginia and Charleston. I think it is a little over a mile and a half from the railroad.

Q. It is the only tract?

A. I don't know of any other—that is, not now.

Q. Do you know the coal called the Senator Davis coal, in this neighborhood?

A. I have along the line. I can't say I am acquainted. I don't know the exact outline.

Q. Do you know whether it is in the market or not?

A. I do not.

Q. Do you know the Shoenberger coal, adjoining the Davis coal?

A. I know part; yes, sir.

Q. Do you know whether that is in the market?

A. I do not.

Q. Do you know the coal adjoining the Shoenberger coal as you go from the Davis coal?

232 A. Yes, sir; I know that there is coal east of the Davis tract.

Q. Is that for sale or not?

Q. I don't know whether it is or not.

Q. Are these coals that I have been speaking of pump coal or self-draining?

A. I can't say as to the Davis tract. There is a portion, I think—I am satisfied that a portion can be drained, but I am not familiar enough to know the exact amount that can be drained. I *amde* a survey for Shoenberger, Brown, and Cochran there of these two tracts all along the line, I think, of Davis, but I am not certain as to the exact location of the Davis tract, but I think there is a portion of it that would drain; I don't say certain about it.

Q. Mr. Shipley, how much room do you allow there for your parallel tracks?

A. I allow twelve feet from centre to centre.

Q. And how many tracks?

A. Two tracks.

Q. Two parallel tracks?

A. I allow just two tracks twelve and a half feet from centre to centre.

Q. How do you get your cars from one track to another?

A. Have a cross-switch.

Q. How will you move your cars?

A. If you have gravity, in that way. If not, you have to have power to do it.

Q. How would you put them in in this case?

A. As I said before, I don't see the necessity of parallels here. I would make one only connection.

233 Q. That is, if you had no better way of shifting them?

A. You might have room above if you did not want to utilize — and have a switch there. There would not be very much room.

Q. That would be the proper way to do it?

A. Well, if you had extras, yes; but they could get along as well without it.

Adjourned to meet at 1.30 p. m.

1.30 P. M.

Parties met.

Present: C. Hasbrouck, Esq., master; G. C. Burgwin, Esq., for plaintiff-, and C. C. Dickey, Esq., for defendant-.

Defendants offer in evidence deed from Alexander J. Hill to Robert Hogsett *et al.*, dated — day of ——, for the purpose of showing that the ten-acre tract of surface was purchased and conveyed with the Hogsett and Wilson coal.

Objected to by counsel for plaintiff- as incompetent and irrelevant.

Master sustains objection.

Defendants also offer in evidence deed from Robert Hogsett and

wife and others, dated November 11th, 1871, to Shoenberger defendants, recorded in Fayette county in Deed Book, vol. 24, page 324, for the Hogsett and Wilson tract, coal and surface, and for the ten acres for the purpose of showing area of coal. For this deed see bill.

Objected to as incompetent and irrelevant by counsel for plaintiff-.

Objection overruled.

Defendants rest.

234 SAMUEL S. BROWN *et al.* *vs.* JOHN H. SHOENBERGER *et al.* } No. 18. November Term, 1887. In Equity.

TUESDAY, *May* 8, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; G. C. Burgwin, Esq., for plaintiff-, and C. C. Dickey, Esq., counsel for defendant-.

J. D. CORE, being duly sworn according to law, testified in behalf of plaintiffs as follows:

Q. Where do you live?

A. I live in Franklin township, Fayette county.

Q. How far from the Parkhill and Hogsett and Wilson tracts, which are being divided?

A. Well, it is probably a mile from the Parkhill tract and a little more from the Hogsett and Wilson.

Q. How long have you been living in the neighborhood?

A. About twenty-five years.

Q. Are you familiar with the selling prices and values of land, coal and surface, in this locality?

A. Somewhat familiar with it. I know of most of the sales, as I am on the Davis tract.

Q. Do you know the difference in the market values of coal which has to be pumped and coal which is self-draining?

A. I know there is generally a difference made in the price.

Q. You know the Parkhill tract of coal which is self-draining, or supposed to be so, and the Hogsett and Wilson?

A. Yes, sir; I know the whole tract.

Q. With your knowledge of the subject of values in that neighborhood, what, in your opinion, is the value of the Hogsett and Wilson tract per acre?

235 A. In my opinion there would be one hundred dollars difference in the values. I would presume that the Parkhill tract was worth $100 more in the market.

Cross-examined by Mr. DICKEY:

Q. Have you been in the coal business?

A. No, sir.

Q. You are a farmer?

A. I am, sir.
Q. Do you know of any sales of coal?
A. Yes, sir; sale of the Dr. Parkhill.
Q. When was that sold?
A. This present year.
Q. What kind of coal was that, pump or drift?
A. Well, it was drifting coal.
Q. It wouldn't drain itself, would it?
A. Let me understand you: The tract by itself drain itself?
Q. Yes, sir; the tract of Dr. Parkhill. Would that drain itself—would the Dr. Parkhill drain itself?
A. No; it would have to be pumped if worked by itself.
Q. You don't mean the Parkhill in partition?
A. No, sir.
Q. How many acres in the Dr. Parkhill?
A. Sxity-five.
Q. And it had to be pumped if worked by itself?
A. It would have to be.
Q. Do you know of any sales of coal in the neighborhood that drain themselves?
A. Yes, sir; the Boyer coal, right adjoining the Parkhill coal.
Q. When was the Boyer coal sold?
236 A. About two years ago I wrote the article.
Q. Who bought it?
A. Cochran.
Q. Who bought the Dr. Parkhill coal?
A. Why, Brown and Cochran.
Q. The same firm?
A. The Boyer coal was a separate farm from that. James Cochran Sons and Company bought the Boyer coal and it is right near the road.
Q. Did they work the two pieces together? The Boyer coal and the Dr. Parkhill?
A. No, sir; they worked the Boyer and the Harper tract together. The ovens were there when it was bought.
Q. How was the Dr. Parkhill coal worked out?
A. It isn't worked out at all.
Q. How were they to work it out?
A. I don't know how; whether by shaft or slope. I am not in the coal business. You ask me and I told you I didn't know.

Question objected to by counsel for plaintiff-.

Q. Do you know what the price of the Dr. Parkhill was?
A. Yes, sir; $275 an acre.
Q. Was that for coal alone?
A. Coal alone.
Q. Do you know the price of the Boyer?
A. $251 an acre for surface and all. There may be a fraction, but that's close.
Q. How much coal was there in the Boyer tract?

A. Well, that I can't answer. I am not a surveyor. There is about twenty-three or twenty-five acres.

237 Q. That was a little piece lying away upon the outcrop; the Boyer coal. It is on the extreme outcrop?

A. No; the Rankin coal was back of it. There is a good coal farm back of it. The Rankin coal is back of it.

Q. Still it is a small piece?

A. Yes, sir.

Q. Was Boyer forced to sell?

A. Well, no; he was in debt some.

Q. And he wanted to sell, didn't he?

A. He wanted to sell, but I don't think he was compelled to sell.

Q. Whereabouts was this coal with reference to the railroad? The Boyer coal?

A. Just across the road from the Parkhill coal. One was on the east side and the other was on the west.

Q. How far away from the railroad was the Boyer and Parkhill coal?

A. The Boyer coal was within a quarter of a mile of the railroad, and the Parkhill is probably a mile and a quarter.

Q. Who owned the intervening lines between the railroad and the coal?

A. That is the surface? Alex. Sherrard.

Q. Who owned the intervening lands between the Boyer coal and the railroad?

A. Why, James Cochran & Company owned the intervening land.

Q. In a tract of coal containing twenty-five acres, wouldn't it make a good deal of difference in the price who owned the surface land between the railroad and the coal?

Objected to.

Question withdrawn.

238 Q. Do you know of any sales of coal in that neighborhood of tracts containing from 86 to 140 acres; do you know of any sales of that kind?

A. Why, yes; I know of several tracts of that size in the Davis purchase; on the farm where I live, that was sold in April, 1881, for $175 an acre for 125 acres of coal.

Q. What kind of coal, self-draining or pump coal?

A. If there was a coal bank opened on it it would drain the coal.

Q. Do you know this Parkhill coal in this case? Now, it is a very fine piece of coal, is it not? Lies very finely?

A. It lies very well.

Q. Do you know of another piece of coal in that region that lies as well as this Parkhill?

A. Yes; the Rankin coal is fully as good.

Q. Where is that?

A. It is south of the Boyer coal; it just lies as well as that Parkhill.

Q. That is a good distance from the railroad?

A. Not very far; not more than a quarter of a mile.

Q. Who owns the Rankin coal?
A. James Cochran and Sons.
Q. That is self-draining?
A. Yes, sir; it is excellent coal.
Q. Through what mines is that taken out?
A. That goes through the Harper farm.
Q. State what you would put the Hogsett and Wilson coal at per acre.
A. Well, from what I know about it, I am not a coal man, but I suppose one would be worth $400 an acre, and the other $500.
239 Q. Which $400 and which $500?
A. Why, the Hogsett and Wilson coal would be worth $400, and the Parkhill $500.
Q. The Hogsett and Wilson coal will have to be pumped, will it not?
A. Yes, sir; I think so.
Q. It will not drain, the water will follow the mining?
A. Yes, sir.
Q. To a party desiring to start a coke works upon either of the tracts, the Hogsett and Wilson or the Parkhill, would not one tract be just about as valuable as the other?

Objected to by counsel for plaintiff as not proper cross-examination, and the witness has stated he is not a practical coke operator, and his testimony-in-chief was upon the values of coal as judged by his knowledge of sales.

A. I say I would take the big tract if I was going to buy.
Q. You never had any experience?
A. No.
Q. Then you just say that you would take the big tract because there is more coal in it?
A. No; that is not the reason; I think there is $100 difference in favor of the smaller tract.
Q. But you prefer the big tract because there is more coal?
A. It would come to more money.
Q. Even if there is a difference of $100?
A. Yes, sir.

Question by Mr. BURGWIN:

Q. From your valuation of $100 difference per acre, you think you would rather take the 142 acres?
240 A. I think so; that is my notion.

Question by Mr. DICKEY:

Q. Have you ever bought or sold coal lands for coking purposes?
A. No.
Q. Never have?
A. No, sir; I have not directly. I engaged as executor in some coal lands that were on sale.
Q. How long ago?
A. Inside of two years.

Q. Where was that coal?
A. It was the Joseph Work coal.
Q. To whom was it sold?
A. To W. J. Rainey.
Q. Was that self-draining coal or was it pumping coal?
A. Pumping coal.
Q. Do you know at what price it was sold?
A. $470 for surface and coal.
Q. Where was the Joseph Work coal?
A. It adjoins the Joseph Hare coal.
Q. Well, did that coal drain to one point or did the water follow the mining operations?
A. Well, now, it hasn't been operated.
Q. Would the water drain to one point?
A. It looks so to me.
Q. There would be a good deal of difference in value of coal whether the water would drain to one point and where it would follow the miner?
A. I am not an expert. I am judging from the sales around me—by what they really have brought. I can't tell you much
241 about anything else.
Q. Then you can't answer the question?
A. No; I can't answer it intelligently.
Q. Would the piece of coal you speak of as the Work coal join the pieces in this partition?
A. I don't know where the Joe Hare tract is.
Q. Now, in the matter of the Boyer coal, you say that is self-draining?
A. Yes, sir.
Q. Is it not on the railroad?
A. No, sir.
Q. And the purchaser of the coal owned the surface land lying between that tract and the railroad?
A. Yes, sir.
Q. Do you know of any sales within, say, five years of any tract of self-draining coal containing about 86 acres, situate immediately upon a railroad or close to a railroad in that region? Do you know of any such sale as that?
A. I don't think I do.
Q. Then the only sale of self-draining coal that you have testified to is the one of the Boyer farm, where the purchaser owned the land between that farm and the railroad? Isn't that the only one that you can testify?
A. I testified to that fact.

Redirect by Mr. BURGWIN:

Q. Mr. Core, do you know of the sale of the tract of coal land adjoining you by Howell and Brownfield?
A. Yes, sir; I know about that field.
—. He was the man who made the sale within five years?
242 A. Yes, sir; that had been within five years.

Q. Do you know what that coal sold for?

A. Well, yes; it is less—I can't give the dollars—but it is less than $325 per acre for the coal. It is on the railroad—comes right up to the railroad.

Q. There is access to that Boyer coal that you speak of as having surface land between it and the coal—there is access to that coal without going over the surface?

A. Yes, sir.

Cross-examined by Mr. DICKEY:

Q. How would you get a railroad?

A. I don't know how I would get one unless I fetch it up the public road.

Q. Then you would either have to fetch it up the public road or go over the surface?

A. Yes, sir.

Q. Would it justify building a railroad for twenty-five acres?

A. No; I don't think it would.

Q. To whom was the Hogsett and Wilson coal sold?

A. Brown and Cochran.

Q. When was that sold?

A. I don't just recollect the date, but is inside of twenty-five years. I know that.

Q. How far from the railroad?

A. Right from the railroad.

Q. Whereabouts was it?

A. The railroad ran up the Nellie mine, and it is right on the south side of that.

Q. Was it all self-draining?

243 A. It all drained to one point.

Q. It has to be pumped?

A. Yes.

E. J. TAYLOR recalled by Mr. BURGWIN:

Q. Mr. Taylor, have you made a topographical survey of the surface land which is the subject of partition in this case?

A. Yes.

Q. Have you examined the coal and the surface with reference to the proper location of the pit-mouth entries and necessary machinery, ovens, tracks, &c., in your opinion, for the operation of these two tracts of coal?

A. Yes, sir; I have.

Map offered in evidence by Mr. Burgwin, May 6th, 1888.

Q. Is this plan in accordance with your opinion, based upon your survey?

A. This map shows the contours and are taken five feet apart, and on that map I have located eighty-four ovens on the west side of the P., McK. and Y. railroad and one hundred and forty ovens on the east side. The red, broken line on the west side of the railroad indicates the siding necessary for the eighty-four ovens on the west,

and on the Parkhill I have shown in red a pit mouth marked water-course; that, in my opinion, is the proper location for the opening for water-course for draining the Parkhill coal, and immediately adjoining it I would open a pit mouth for the taking out of this coal. I would elevate the coal by a vertical lift to a height sufficient to dump the coal into a bin for these eighty-six ovens; that will make all of the Parkhill coal work down hill to your vertical
244 hoist—that is, the coal both inside the mine and outside will gravitate or will work down hill. On the west side I would open a pit mouth on line with the old pit mouth which is marked in black, and drive the entry in the direction of the line running back towards the Cochran and Rankin corner. Driving an entry in that direction will allow all the coal on that side to gravitate down hill to that entry and will be hauled up out of the mine by a chain line, and I would place the engine on the west side of the P., McK. and Y. railroad and between the ovens and the railroad, on the west side of railroad.

Q. You made this plan?

A. Yes, sir; I made the survey and plan, Exhibit May 8th. The pit mouth on the west side of the P., McK. & Y. railroad and marked in red thirty-two feet above the rail of the railroad shows a location that is at a sufficient height to dump into larries to charge the eighty-four ovens. A water-level line drawn from that pit mouth south twenty-five degrees west would leave of the Parkhill tract eighteen acres below the water level; or, in other words, there are eighteen acres of the Parkhill tract that would have to be hauled up him to get it into the larries to charge the ovens, and there is seventy of the eighty-four ovens that would have to be charged by hauling the larries up grade; or, in other words, if you operated this coal-field as a drift coal, the entire tract of coal will have to be hauled up hill either outside or in to charge your ovens, with the exceptions of fourteen ovens.

Q. There are two ways by which you might operate this Parkhill tract?

A. Yes, sir.

245 Q. You have explained one by the entry indicated in red upon the map and by means of which you would have to haul eighteen acres up grade to get it into the larries. Now, explain the other method.

A. The other way would be to operate it at the pit mouth near the Joseph Hare line and adjoining the pit mouth marked water-course, and at that point have a vertical hoist similar to that used at the shaft, and elevate the coal sufficiently to dump it into a bin and then charge from the bin into the larries.

Q. What would that height be?

A. That height would be about forty-five feet.

Q. What would be the cost of a plant and machinery necessary to make this elevation?

A. The cost of the entire plant would be $7,500, hoistering machinery, boilers, drums, derrick, and bin.

Q. What labor would you need?

A. You would need an engineer and a cager.

Q. I wish you would state what your map shows and what you found by your survey as to the proper place to locate the ovens necessary for the operation of the Parkhill tract.

A. In locating these ovens I would locate my number one oven within forty feet of the corner between the Joseph Hare and the Parkhill tract-; the eighty-four ovens would occupy the space of 920 feet, and this occupies all the ground that is suitable for ovens west of the P., McK & Y. railroad.

Q. If you place the south oven of the eighty-four at the distance of 300 feet north of the line of the Alexander Hill line, where would that throw the north end of your ovens?

246 A. It would be necessary to make a fill of 10 to 11 feet below the oven siding.

Q. What would be the expense of constructing—the difference in the expense of the coke plant in that way as between the way you have given us?

A. I haven't figured it out exactly, but I believe the ovens would cost twice as much to construct it where you would have to construct it on a fill of that kind.

Q. Would the ovens be as good when made on a fill of that kind, even with the additional expense, as if constructed on the ground?

A. No, sir; the ovens would have to be repaired within a year; two years at most.

Q. I wish you would state how you found the surface land situated topographically for the purpose of side tracks and sidings for the operations of ovens.

A. The surface land is very suitable for side tracks sufficient for eighty-four ovens located as I have it on this map, Exhibit of May 8th.

Q. The siding which you consider necessary is located how on this map?

A. By a broken red line marked coke siding.

Q. Would it be as conveniently and economically operated, supposing the eighty-four ovens were constructed as proposed by Mr. Shipley, whose testimony you have read, I believe—would it be as economically operated with the siding entirely below the panhandle for the Parkhill tract?

A. No, sir; it would not.

Q. Why not?

247 A. Because you would have no room for empty cars except immediately in front of the ovens, and to reach your ovens you would have to back your cars up grade to place them. They would either have to be placed by horse power or shifting.

Q. Would that make an additional expense of operating?

A. It would.

Q. How much?

A. Well, if you had to keep a horse and man, there would be an expense of $2.75 a day.

Q. Have you knowledge of the operation of the different kinds of

coke plants throughout the Connellsville region with reference to the use of sidings, waste-car siding, or stock room?

A. Yes, sir; I have a general knowledge of the way they generally operate in the region.

Q. I wish you would state, if you know, whether or not your experience is that the operator demands, when it can be had, for the successful and economical operation of the plant a waste-car siding, and if that siding is located with reference to the ovens.

A. Whereever it is possible to have a waste-car siding, I don't know of a single plant that they don't have it, and that if their ovens are on a grade that they don't have it at the head of their ovens, so that their empty cars will gravitate down in front of their ovens, so that they can drop out their loaded cars and drop in more empties without waiting for the railroad shifter.

Q. How much is considered necessary or desirable for stock room or waste-car siding above the ovens?

A. There should be room for two days' supply of empty cars.

248 Q. For the eighty or eighty-four ovens how much would that be in feet?

A. It would be six hundred fifty or seven hundred feet.

A. In view of the topographical survey which you have made in the examination of the surface of the two tracts of coal and of the calculations as to the pit mouths to mine them economically, how, in your opinion, should the surface land lying between them be divided?

A. By the P., McK. and Y. railroad. I am firmly convinced that the surface should be divided by the P., McK. and Y. railroad.

Q. Do you or do you not consider the panhandle essential to the proper operation of the Parkhill tract?

A. I consider that piece of surface as valuable to the Parkhill tract as any other piece there.

Q. Do you consider it essential to the proper operation of the Hogsett and Wilson coal?

A. No, sir; I do not.

Q. Now, in your opinion, will the Hogsett and Wilson tract have a place to discharge the water from the mines and to deposit the waste from the coke on the surface land which is on the east side of the railroad track economically and to advantage?

A. Yes, sir; for if the water is pumped out of the pit mouth and emptied into one of these culverts, any of which can be used for discharging the water of this mine into the creek——

Q. Where are they?

A. They are shown on the map in blue.

Q. One should be on the south side of the pit mouth, as you have located, and the other would be a short distance on the north side?

249 A. Yes, sir.

Q. Would it be essential or desirous for the Hogsett and Wilson tract or the operator of the Hogsett and Wilson tract to have access to the creek directly in front of the pit mouth to obtain water for the charging of the ovens?

A. You would need an engineer and a cager.

Q. I wish you would state what your map shows and what you found by your survey as to the proper place to locate the ovens necessary for the operation of the Parkhill tract.

A. In locating these ovens I would locate my number one oven within forty feet of the corner between the Joseph Hare and the Parkhill tract-; the eighty-four ovens would occupy the space of 920 feet, and this occupies all the ground that is suitable for ovens west of the P., McK & Y. railroad.

Q. If you place the south oven of the eighty-four at the distance of 300 feet north of the line of the Alexander Hill line, where would that throw the north end of your ovens?

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A. I haven't figured it out exactly, but I believe the ovens would cost twice as much to construct it where you would have to construct it on a fill of that kind.

Q. Would the ovens be as good when made on a fill of that kind, even with the additional expense, as if constructed on the ground?

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Q. Why not?

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Q. Would that make an additional expense of operating?

A. It would.

Q. How much?

A. Well, if you had to keep a horse and man, there would be an expense of $2.75 a day.

Q. Have you knowledge of the operation of the different kinds of

coke plants throughout the Connellsville region with reference to the use of sidings, waste-car siding, or stock room?

A. Yes, sir; I have a general knowledge of the way they generally operate in the region.

Q. I wish you would state, if you know, whether or not your experience is that the operator demands, when it can be had, for the successful and economical operation of the plant a waste-car siding, and if that siding is located with reference to the ovens.

A. Whereever it is possible to have a waste-car siding, I don't know of a single plant that they don't have it, and that if their ovens are on a grade that they don't have it at the head of their ovens, so that their empty cars will gravitate down in front of their ovens, so that they can drop out their loaded cars and drop in more empties without waiting for the railroad shifter.

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Q. Do you or do you not consider the panhandle essential to the proper operation of the Parkhill tract?

A. I consider that piece of surface as valuable to the Parkhill tract as any other piece there.

Q. Do you consider it essential to the proper operation of the Hogsett and Wilson coal?

A. No, sir; I do not.

Q. Now, in your opinion, will the Hogsett and Wilson tract have a place to discharge the water from the mines and to deposit the waste from the coke on the surface land which is on the east side of the railroad track economically and to advantage?

A. Yes, sir; for if the water is pumped out of the pit mouth and emptied into one of these culverts, any of which can be used for discharging the water of this mine into the creek——

Q. Where are they?

A. They are shown on the map in blue.

Q. One should be on the south side of the pit mouth, as you have located, and the other would be a short distance on the north side?

249 A. Yes, sir.

Q. Would it be essential or desirous for the Hogsett and Wilson tract or the operator of the Hogsett and Wilson tract to have access to the creek directly in front of the pit mouth to obtain water for the charging of the ovens?

A. No, sir.

Q. Why not?

A. The water is of such a quality that it is not suitable for charging ovens; it is mine water, discharged from mines above—discharged from the Nellie mine and Rainey's Paul mine.

Q. Have we an instance of that in the immediate vicinity as to the desirability of that water?

A. The water on that side is not used by any person.

Q. Where does Mr. Rainey get his water?

A. The water he uses comes out of a body that lies between the Joseph Hare and the Hogsett and Wilson tract and does not connect with the creek.

Q. I wish you would state, Mr. Taylor, whether or not there is a difference in the cost per acre of operating a large tract and a small tract of coal.

A. Yes, sir; there is a difference.

Q. With the knowledge you have of the operation of coke plants and the expense connected with them, have you sufficient knowledge, in your opinion, to testify as to the difference in the fixed charges as between a large tract and a small tract?

A. I think I have sufficient knowledge of coke plants to know the number of men required to operate it and the different class of men required; as to the prices paid those men, I don't know that I am competent.

250 Q. You know the average wages paid?

A. I know the prices that are paid at some mines.

Q. I wish you would state, Mr. Taylor, what employees would be necessary in both tracts, assuming the value of the coal, and I will prove by a subsequent witness whether these values are correct.

A. There will be necessary for each tract a superintendent; also a pit boss and a yard boss; this is fixed and common to both tracts, and I based my calculations on a salary for the superintendent of $100 per month, pit boss at $65, and yard boss at $60, making a total monthly expense of $225, which divided by twenty-five working days to the month would give $9.00 a day as fixed expenses; eighty-four ovens, which are attached to the Parkhill tract, would manufacture 150 tons of coke a day, and a daily expense of nine dollars would make the fixed charges of the coke produced from the Parkhill tract six cents a ton. On a hundred and forty ovens attached to the Hogsett and Wilson tract, superintendent's salary $100, pit boss $65, yard boss $60 a month, making a daily expense of $9.00. One hundred and forty ovens will produce 250 tons of coke a day, which gives a fixed expense of three and six-tenths cents per ton for the coke produced out of the Hogsett and Wilson tract or a difference in favor of the Hogsett and Wilson tract of coal of two and four-tenths cents a ton. In other words, the Hogsett and Wilson coal, using one hundred forty ovens, can produce coke two and four-tenths cents a ton cheaper than the Parkhill tract.

Q. Absolutely cheaper; the fixed charges that the plant can't do without, they are common to both?

251 A. I am taking the charges that I have enumerated.

Cross-examined by Mr. DICKEY:

Q. Mr. Taylor, in your judgment, how many ovens would there be for each of these tracts to operate this coal successfully, economically, and conveniently?

A. About an oven to the acre.

Q. You have shown by a red line on the east side of the railroad the proper ovens for the Hogsett and Wilson coal, have you?

A. Yes, sir.

Q. Now, in your judgment, there should be 650 to 700 feet of extra siding—should be there for the Parkhill coal?

A. Yes, sir; there should be.

Q. How many cars would you put in there?

A. From 18 to 20 cars.

Q. For the eighty-four ovens?

A. Yes, sir.

Q. And on the map the red line on the east side of the railroad down to the southerly part of the panhandle shows that siding?

A. Yes, sir.

Q. Now, in your judgment, should the Hogsett and Wilson coal have siding for extra cars?

A. Yes, sir.

Q. Should that be above the ovens?

A. Yes, sir; it should.

Q. How many extra cars should the Hogsett and Wilson coal have?

A. I should have about 32 cars.

Q. How many feet of siding would that require?

A. About a thousand feet.

252 Q. Will you show us on the map where you would put a thousand feet of siding above the Hogsett and Wilson ovens?

A. I have sketched in in pencil the extra car siding for the Hogsett and Wilson tract on the east side of the railroad.

Q. The lead-pencil line which you have just sketched upon the map represents that siding?

A. Yes, sir.

Q. Then, in your judgment, if your lines upon the map be correct, the Hogsett and Wilson ovens will require less siding than the ovens of the Parkhill tract, will they?

A. No, sir; they will not. They will require a thousand feet, and I have sketched it on the map.

Q. Have you not testified that the red line on the west side of the railroad from the Hill line to the southerly part of the panhandle represents the siding necessary for the Parkhill coal?

A. Yes, sir.

Q. Is not the lead-pencil line which you have sketched upon the east side of the railroad a——

A. You will notice on the map that I have drawn a double empty car siding at the head of these ovens.

Q. You propose, then, to make the owner of the Hogsett and Wilson coal double up his cars, do you?

A. The ground is suitable for building it in that way.

Q. You would think it was equitable to give to the owner of the Parkhill surface all that lies in front and the front of the Hogsett and Wilson coal?

Objected to by counsel for plaintiff- as incompetent and irrelevant and not proper cross-examination.

A. I don't think or consider that land west of the railroad
253 belongs to the Hogsett and Wilson.

Q. You are aware, are you, that the ten-acre piece constitutes one tract on both sides?

A. I understand that it was so purchased.

Q. You are aware, too, that the whole of the ten-acre tract was purchased with the Hogsett and Wilson coal?

A. I don't know that.

Q. Do you know it now?

A. I don't know which tract it was purchased with.

Q. The distance, then, from the southerly end of the red line on the east side of the railroad, which, you say, means coke ovens—the distance from that point by the lead-pencil line which you have drawn down to the intersection of said lead-pencil line with the railroad is 500 feet, is it?

A. Six hundred feet.

Q. If you were going to put two parallel tracts, as indicated by the lead-pencil lines, where would you go for yard room for the Hogsett and Wilson tract—where would your yard room be?

A. What yard room?

Q. The yard room you would need for operating the Hogsett and Wilson coal?

A. Along the immediate front of your ovens there should be yard room from 20 to 30 feet. There is room for that along the entire front as located on that map.

Q. There is also room for a yard of that size in front of the Parkhill coke ovens, is there not?

A. There is.

Q. There is also room in front of the Parkhill coke ovens for the siding the length that you have indicated, is there not?

254 A. Yes, sir; there is.

Q. There is room for a double siding if necessary?

A. Yes, sir; there would be a double siding.

Q. By the scheme of division of surface which you have proposed the creek is wholly on the side of the Parkhill coal?

A. No, sir; it is not.

Q. Will you show us what part of the creek is upon the Hogsett and Wilson coal?

A. At the north end of the twenty-six-acre tract you will notice a bridge crosses the P., McK. & Y. The creek is on the east side of the railroad.

Q. Then, I understand your judgment of this case to be that the

creek front shown at the bridge, as indicated at the north end of the twenty-six-acre tract, would be sufficient creek front for the Hogsett and Wilson coal?

A. Yes; for all the use that the creek can be made of.

Q. How would you drain the water pumped out of the Hogsett and Wilson mine? How would you get rid of the water?

A. Pump it out at the pit mouth; let it run into the present water-course into the creek.

Q. The water-course is marked culvert, is it?

A. Yes, sir.

Q. That is a temporary water-course there?

A. Yes, sir; there is a stream there.

Q. How large a stream?

A. It gathers all the water on the surface land adjoining there.

Q. That is all the water that flows there when it rains?

A. Yes, sir.

Q. There is no water in dry weather?

255 A. ——.

Q. Then, sir, the only water that there is drained is the surface water which falls upon the Hogsett and Wilson surface?

A. That is true with upper culverts; the lower is the spring run that I judge is permanent.

Q. You are sure, are you, that it is permanent in summer?

A. If all the springs at the head of it are dry, I suppose it is dry.

Q. Then you suggest that the water that is pumped out of the Hogsett and Wilson be drained by this?

S. Yes, sir.

A. Is there likely to be much water from the Hogsett and Wilson tract?

A. Not very much.

Q. Then, your theory of the method of draining the Hogsett and Wilson mine assumes that the owner of the part of the ten-acre tract west of the railroad has the right to drain his water through that land on the east side of the creek?

A. Yes, sir; through this natural water-course.

Q. And if he had no right to drain this extra water through these two water-courses he would have no place to drain the water under your theory of division?

A. He would have to carry it to the north end of his property and discharge it into the creek.

Q. He would have to discharge it at the bridge?

A. Yes, sir.

Q. And suppose that the owner of the Hogsett and Wilson coal desired to get water from this creek, how would he get it?

A. He would have to bring it from the north end of the property.

256 Q. About how far would that be?

A. About two thousand feet.

Q. There would be some expense connected with that?

A. Yes, sir.

Q. There would be some expense connected with draining it to the bridge?

A. Yes, sir.

Q. Well, I understand you that unless he had the legal right to run his water through the places marked culverts he would then have to go to the bridge at the north end of the property?

A. As I understand it, Mr. Dickey, he has as much right to drain it into that——

Question repeated by Mr. Dickey.

A. Yes, sir; that is true.

Q. There would be a constant flow of water from the Hogsett and Wilson mine?

A. Yes, sir; there would be.

Q. Day and night, summer and winter?

A. Yes, sir.

Q. If that is stopped the mine would become flooded?

A. Yes, sir; unless you had a water-course to the river.

Question by Mr. BURGWIN:

Q. I ask Mr. Taylor whether the constant flow of water from the mouth of the pit can be evaded by constructing a drain to the easterly side of the entry.

A. Southerly end. Yes, sir; a water-course may be constructed from the Youghiogheny river.

Questions by Mr. DICKEY:

257 Q. Please indicate to the master where the surface is common to these tracts of land which leads from the Hogsett and Wilson coal to the Youghiogneny.

A. There isn't any.

Q. And have no right that you know of to drive a water-course to the Youghiogheny?

A. Yes, sir; there is a law that gives them the right.

Q. By payment of damages?

A. Yes, sir.

Q. You have never made an assessment of these damages?

A. In this case; no, sir.

Q. In case of the division you have suggested here to the master, indicate where the ashes for the Hogsett and Wilson tract would be deposited.

Q. At the north and south end of the tract.

Q. Whereabouts at the south end of the tract?

A. Between the P., McK. and Y. and the siding indicated and on the north end between the railroad and the Hill.

Q. Where would be the most convenient place to deposit the ashes of the Parkhill tract in that case?

A. In front of the ovens at the upper end and below the ovens at the lower end.

Q. You would deposit the ashes, then, from the Parkhill tract as

nearly as possible to the creek bank; it would be quite an advantage to do so, would it not?

A. Yes, sir; I think it would.

Q. What would be the advantage in doing that?

A. That a great many would wash away in time of flood.

Q. The creek would be quite a convenient place for clearing away this matter?

258 A. Yes, sir.

Q. Will you tell me how the ashes would be carried away from the Hogsett and Wilson coal in case they were deposited as you suggest?

A. They would be carried away by the same creek.

Q. Then you would haul all the ashes from the Hogsett and Wilson coal down to the bridge at the north end of the twenty-six-acre tract?

A. Near the bridge.

Q. Don't you think that would be found a greater inconvenience to the owner of the Hogsett and Wilson coal than to the owner of the Parkhill coal?

A. Not by any means.

Q. Don't you think that the draining of the water from the Hogsett and Wilson mine, the carrying it down to the bridge indicated upon your map, would be a greater inconvenience to the owner of the Hogsett and Wilson tract than drawing out the few cars——

A. ——.

Q. Well, now, if a double siding would be all right for the Hogsett and Wilson coal a triple siding would answer the same purpose, would it not?

A. Yes, sir.

Q. That would be about 300 feet. It would require 350 feet, would it not?

A. 333⅓.

Q. Well, the same rule would apply to the Parkhill coal, would it not?

A. Yes, sir.

259 Q. You could make a triple siding there instead of one long siding?

A. There is no room between the P., McK. and Y. and the property line.

Q. Tell us how much room there is between the property corner and the railroad on the west side.

A. There is just about fifty feet.

Q. How much room does it require for one siding?

A. Twelve feet.

Q. How many sidings can you then put in fifty feet?

A. There is six feet to come off for the present track of the P., McK. and Y.; that would leave 44 feet; that would leave room for three tracks between the track and the property corner, but outside of that they have the right of way. I don't know how many feet. I think it is either 24 or 36 feet.

Q. It is the rule in operating coke ovens to discharge half of them every day?

A. Yes, sir.

Q. Then you have to discharge 43 ovens from this Parkhill tract?

A. Yes, sir.

Q. How many cars would that require?

A. About nine or ten cars.

Q. That would be necessary, would it?

A. Yes, sir.

Q. Then a supply of nine or ten extra cars — be sufficient?

A. It would be sufficient for a day. There is a great advantage in having at least two-days cars. There is some days there would be plenty of cars, and if you haven't room for them the next day when there's a scarcity you don't get any, where if you had
260 yard room you could store in the cars when plenty.

Q. According to your testimony how many tons of coke do these 43 ovens make at each discharge?

A. About four tons each.

Q. Are you sure that each of the ovens would produce four tons each of coke?

A. They will certainly produce three and a half on an average.

Q. About three and a half. Would the average be three and a half?

A. Yes, sir; three and a half.

Q. Nearer three and a half than four?

A. I don't know which would be the nearer; it would be over three and a half.

Q. Now, will you tell us what amount of coke, on an average, the present coke cars carry?

A. I think the average would be about seventeen tons.

Q. Aren't you a little mistaken in that?

A. No, sir; I think not.

Q. You are sure it isn't between twenty and thirty?

A. I know that is what the new ones carry.

Q. Don't you think they use more new ones than old ones?

A. No, sir; I think there are as many old ones as new ones.

Q. The new ones will carry about thirty tons, will they?

A. Yes, sir; some of the loads make thirty tons.

Q. Then, with the new cars you testified to, five or six cars per day will carry off the entire product of those 42 ovens, will they not?

A. The thirty-ton cars; yes, sir.

Q. Do you think it necessary to have six or seven hundred feet of siding in a straight line for those six cars?

261 A. They should have that even taking thirty-ton cars; there should be room for twelve cars.

Q. Well, if you double up the cars on the Hogsett and Wilson why not on the Parkhill tract?

A. There isn't room.

Q. Haven't you testified that there is a space of 44 feet between

the track of the P., McK. and Y. railroad and the corner of the Joseph Hare tract?

A. Yes; but not between the line and their right of way and the Joseph Hare line.

Q. ——?

A. There is not.

Q. You are informed there has been a right of way of the P., McK. and Y.?

A. Yes, sir.

Q. There isn't part of that line there?

A. No; only the one shown on the map.

Q. You mean by the right of way the right to occupy the land to a certain width?

A. Yes, sir; for the purpose of constructing tracking.

Q. Then you think it would be all right to put a double line of track on the Hogsett and Wilson tract, but only a single one on the Parkhill?

A. If you have the room it would be equally right.

Q. And you think the owner of the Parkhill tract ought to be more accommodated than the Hogsett and Wilson owner?

A. I don't think they ought.

Q. Mr. Taylor, I want you to state what proportion of the coke works have sidings above the ovens that will accommodate
262 two days' run, say from 700 to 1,000 feet. I want you to state what proportion has that.

A. I can't answer that.

Q. You can't answer that?

A. No, sir; I don't know the exact proportion.

Q. You are aware that it is a very small proportion?

A. No, sir; I don't know that.

Q. It is not necessary to have such sidings?

A. I consider it such. All the works that I have designed I have designed with that object in view.

Q. Then a large number of the coke works in the coke region are run without the necessary appliance?

A. Whereever they can have the necessary appliance they have it. I think whereever they can get the waste siding they have it.

Q. Will you tell me what proportion do have it?

A. I don't know what proportion.

Q. You have spoken of a horse and driver to shift cars back and forward. Will you tell us of coke works where they have a horse and driver for that purpose?

A. No; I don't know of any coke works that have?

Q. Then when you spoke of the horse and driver it was wholly a suppos-tit-ous case?

A. No, sir; I think that would be necessary.

Q. Will you tell us of any coke works where they do have a siding above the ovens to accommodate two days' run of cars where they employ a horse and driver to shift their cars?

A. I don't know.

263 Q. Do you know that in all cases in the coke region the shifting of cars is done by the railroad engine upon the road the cars are shipped?

A. I know they only do it where they have sufficient grade to operate their cars by gravity.

Q. Will you give us—again I ask you to tell us—the number of works where they have grades sufficient to operate by gravity?

A. I am not familiar with all the places.

Q. Is it half?

A. I cannot give you the proportion.

Q. Then, so far as you know, in all cases in the coke works in this region the moving of cars is done by the railroad company upon which the coke is shipped?

A. No, sir; except as it — for siding; a great many of them shift and handle their cars by gravity.

Q. Except in such cases as those where the cars are moved by gravity?

A. Yes, sir; as far as I know of.

Q. There is no extra charge by the railroad company for moving the cars?

A. I don't know that.

Q. You know of none, do you?

A. No, sir.

Q. Do you know a mine adjoining the property in question called the Paul mine?

A. Yes, sir; I do.

Q. Is that mine upon the Pittsburgh, McKeesport and Youghiogheny railroad?

A. Yes, sir.

264 Q. Has it siding above the mine sufficient to accommodate two days' run of cars?

A. Not at present.

Q. How are their cars moved or shifted?

A. They are placed by the shifting engine of the P., McK. and Y. railroad, as far as I know at present.

Q. Without extra charge, as far as you know?

Objected to by counsel for plaintiff- as incompetent and irrelevant and not cross-examination.

Q. Then, when you testified to the horse and driver having to be employed, it was wholly hypothetical?

A. No, sir; it is not; I consider it a necessity. If at any time when the locomotive is not able to do your shifting and you want to load any stock, you have got to have a man and a horse.

Q. Give us any case in the coke region where the man and horse are employed for that purpose.

A. I don't know of any now.

Q. Now, I call your attention to the works known as the Paul works and I ask you if that was not run steadily through the last season.

A. I don't know that.

Q. Referring now to this map, Exhibit May 8, 1888, No. 1, suppose the opening of the Parkhill coal to be made at the point marked pit mouth thirty feet above the railroad, will any machinery be necessary for hoisting that coal?

A. In my opinion it would be worked to a disadvantage if machinery were not used.

Question repeated.

A. It can be worked without machinery.

Q. It would be down hill wholly to that pit mouth?

265 A. Along the line it would be all level.

Q. The main entry would be level?

A. Yes, sir.

Q. And I suppose there would be — at the side of the main entry?

A. Yes, sir; there would be.

Q. And the same thing would apply to the Hogsett and Wilson?

A. Yes, sir; excepting that in this tract there would be a portion of it have to be hauled out by mule power.

Q. When brought to the pit mouth marked thirty-two feet above the railroad, how far would it have to be elevated?

A. I think the coal is at the proper elevation.

Q. ——.

A. Yes, sir; and discharge it into the larries.

Q. Then you could bring the coal to the pit mouth marked thirty-two feet above the railroad upon a level, and could charge directly into the larries?

A. All, excepting eighteen acres of the Parkhill coal.

Q. Well, wouldn't 18 acres of the Parkhill tract be brought up to the main entry?

A. Be hauled up; yes, sir; inside the mine.

Q. It would be substantially the same, then, as that piece of the Hogsett and Wilson coal inside the mine?

A. No, sir; the difference in the Hogsett and Wilson coal is it would be all down grade; in the Parkhill coal it would be up grade inside the mine.

Q. Wouldn't there be part of the inside of the Hogsett and Wilson up and down hill?

A. Worked by mule power inside the mine.

Q. Then by opening the pit mouth there would be no

266 machinery whatever connected with the Parkhill tract?

A. Not universally so.

Q. And it is hauled a proper grade for dumping into the ovens except some 18 acres, but on the outside track, with the exception of sufficient coal to charge 14 ovens, would have to be hauled up grade?

A. ——.

Q. What do you mean by the outside?

A. Outside would be the larry track, on top of the ovens.

Q. Then haven't you testified that the pit mouth is on a grade sufficient to charge the larries?

Q. The ovens are all on the down grade from the south to the

north; all excepting 14 of these ovens are on the south side of the pit mouth.

Q. Then I understand you that the pit mouth is on a sufficient elevation to charge the ovens?

A. Yes, sir.

Q. But at the south end of the ovens the ovens rise?

A. Yes, sir; the ovens would be on a grade parallel with the railroad.

Q. How far up hill would you have to haul the coal for that purpose?

A. A grade of seven feet to the hundred.

Q. How many feet would you have to elevate?

A. Nine feet above the pit mouth.

Q. How many feet do you have to elevate the coal taken out of that pit mouth?

A. The extreme ovens would be at an elevation of 6.3 feet.

Q. Then the average elevation would not be over half that?

267 A. No, sir; three and a half would be the average elevation.

Q. How many ovens would that apply to?

A. Apply to about 70 ovens.

Redirect by Mr. BURGWIN:

Q. I wish the witness would explain the survey by which he determined the area of the Hogsett and Wilson coal to be 142.66 acres and not 141 and some hundredths acres.

A. 142.66 acres is the correct area of the Hogsett and Wilson tract, and the survey is in accordance with that deed.

Q. Is the white-oak stump the correct corner of the tract? And explain to the master why it is as given on the plan and not as given in the testimony of Mr. Lash.

A. The white-oak stump at the corner of the Cochran tract and the Hogsett and Wilson is recognized and acknowledged by the parties owning the adjoining land as being the corner, and is on the line of the James Cochran and the Hogsett and Wilson tracts. There is no fixed corner at the line of the Alexander Hill to start from, as testified to by Mr. Lash; there is simply a fence, and at the other end the white-oak stump is recognized by the fence and by the property owners, and there is two white-oak stumps — the other, and is recognized by the fence and by property owners as being their corners, and in my opinion there can be no doubt as to their being the true corners.

Recross-examined:

Q. How do you know that the white-oak stump is recognized by these parties?

A. Mr. Rankin, who owns the adjoining land—when I first went there I asked him if he knew where there was any

268 corners. "Yes, he knew where the white-oak stump was at the intersection of the two roads," and I started my survey from that point.

Q. That is the only evidence you have?
A. By the parties; yes, sir.
Q. He owns part of the Hogsett and Wilson surface?
A. Mr. Rankin owns part of the Hogsett and Wilson surface.
Q. He owns the surface overlying the Hogsett and Wilson coal?
A. He owns the surface marked Joseph Hare.
Q. Does he acknowledge that stump?
A. His lines do not extend as far as the white oak at the corner of the Cochrans.
Q. Who owns the land adjacent to the corner?
A. I don't know who owns on the south. I am not certain but what Rankin owns it at that point. I rather think he does.
Q. Mr. Taylor, who requested you to make this map, Exhibit May 8, 1888?
A. I made it at the request of Mr. Joseph Loughery.
Q. Who is Mr. Joseph Loughery?
A. He is an employee of Brown and Cochran.
Q. Their manager, is he not?
A. Yes, sir.
Q. You are the engineer for Brown and Cochran?
A. Yes, sir.
Q. Have been in their employ a number of years?
A. Not so long in the employ of Brown and Cochran; two years, probably.
Q. Well, did Mr. Loughery tell you what he wanted the map to show?
A. No, sir; only for me to go on the ground and make a proper location for the coke ovens of the Parkhill tract and the
269 Hog——
Q. He told you, if possible, to figure the panhandle for Brown and Cochran?
A. No, sir.
Q. That was your purpose, was it not?
A. No, sir; it was not.

Adjourned to meet at two p. m.

TWO P. M.

Parties met.
Present: C. Hasbrouck, Esq., master; G. C. Burgwin, Esq., counsel for plaintiff-, and C. C. Dickey, Esq., counsel for defendant-.

JOHN JONES, being duly sworn in behalf of plaintiffs, testified as follows:

Q. Where do you reside, Mr. Jones?
A. Connellsville.
Q. What is your occupation?
A. I have been building coke ovens for the past year.
Q. Building coke ovens?
A. Yes, sir.
Q. How long have you been in that business?
A. A year; a little over.

Q. What was your business before that?

A. I followed different kinds of business; mining boss; had charge of coke works.

Q. How long have you been familiar with the business of coke manufacture?

A. Well, a little over a year.

Q. How long have you been in the coal and coke business?

A. Well, I have been pretty much all my life; I have been in the coke regions for 17 or 18 years.

Q. Are you familiar with the proper method of construct-
270 ing and *and* arranging coke plants for the manufacture of coke out of coal on adjoining tracts?

A. In some cases I am.

Q. Have you made an examination of the surface land which lies between the Parkhill tract and the Hogsett and Wilson tract of coal with a view to determining the proper method of locating the ovens and of dividing the surface between the two parties?

A. Yes, sir.

Q. I wish you would look at the map Exhibit of May 8, 1888, Number One, and state how, in your opinion, the surface land should be divided so as to give a piece to the Parkhill tract of coal and a piece to the Hogsett and Wilson tract of coal, so that each can be accommodated to the best out of what you would have to divide.

A. Well, if I was to divide I would divide by the railroad. I would give all this on this side of the railroad *by* the Hogsett and Wilson tract, and this to the Parkhill.

Q. All the surface land on the east of the railroad you would apportion to the Hogsett and Wilson tract of coal, and all the surface land on the west you would apportion to the Parkhill tract of coal?

A. Yes, sir.

Q. I wish you would state why you would make the division in that way.

A. Well, I think it would suit.

Q. In your opinion as a practical man the coke plant could be constructed better if divided in that way, you think?

A. Yes, sir; if divided in that way.

Q. Do you think that the panhandle, the souther-most
271 part of the surface, is necessary to the proper working of the Hogsett and Wilson coke plant?

A. Well, it don't make very much difference.

Q. How would you construct your waste-car siding?

A. Well, I would construct it above my works where I could drop my cars down by hand, in place of hauling them down.

Q. In your opinion and from your observation is a waste-car siding desirable for a coke plant?

A. That is for empty cars above the works; yes, sir.

Q. I wish you would explain why it is desirable.

A. Well, sometimes if you get more cars than you really can run in one day (sometimes parties do get more than they get at others) they have room to place them in; for instance, if you had stock

coke and wanted any extra cars you would get them; sometimes coke-workers have stock coke and by having extra cars you have a chance to load them.

Q. Explain what you mean by stock coke.

A. Extra coke. Sometimes the coke trade gets slack and they fill their cars up; they can't get the cars to load sometimes.

Q. What has been your observation with regard to the desirability of these empty-car sidings throughout the Connellsville region?

A. Well, some have and some haven't; it is owing to locality.

Q. If they can get them they have them?

A. Yes, sir; generally.

Cross-examined by Mr. DICKEY:

Q. And if they can't get them they do without?

A. Yes, sir; certainly.

Q. The siding above the ovens is not at all necessary to the operation of these coke works?

272 A. Well, it is, or I wouldn't have said so.

Q. You say it is necessary?

A. If you can get it.

Q. Will you tell me what proportion of coke works have siding above the ovens sufficient to accommodate two stock of empty cars?

A. Well, I can't tell you that.

Q. ——?

A. Yes, sir; they have.

Q. Have half of them?

A. Well, I suppose they have.

Q. Have three-fourths?

A. Well, I can't tell that, but at — works back of Stonerville they have pretty long sidings; I don't know how long.

Q. Have you been on this ground?

A. Yes, sir.

Q. Then you would divide the land that way simply because the railroad runs through it?

A. Yes, sir; that is the reason.

Q. Suppose you had a coke works with a creek in front of the works would you not think it a convenience to have a front on it?

A. Yes, sir; to wash away the ashes.

Q. And if you could get it would you not want to have that front?

A. Well, I don't know; it would be handy.

Q. If you were pumping water out of your mines you think it would be necessary to get to the creek?

A. As long as you had to drain it.

Q. You would think it necessary to get this drained away?

A. Certainly.

273 Q. And a creek would be the natural place?

A. It would run into the creek, I suppose.

Q. Don't you think that if there was a creek running in front of the property as that does there it would be just as natural a division?

A. Well, one party might interfere with the other; that is why I said the railroad would divide.

Q. Well, leave that out, wouldn't the creek be just as natural?
A. It might; yes, sir.
Q. The creek would be a natural division, wouldn't it?
A. I can't tell that.
Q. The railroad is not a natural division?
A. No, sir; it isn't.
Q. Suppose it were possible by agreement to get the railroad moved over here close to the run—suppose it was possible to move the road—wouldn't it be very convenient for the Hogsett and Wilson to have the panhandle?

Question objected to. We are dealing with the land as it is and not what may or not be done, and not proper cross-examination.

A. I don't think it would make any difference—that is, if the railroad company would move their tracks.
Q. If they did move it you think it would make a difference?
A. Make a difference, how do you mean?
A. To the Hogsett and Wilson coal.
A. It would give them more room on this side, and would give this party less room.
Q. It would give, however, to the Parkhill coal the whole surface in front of that coal, would it not?
274 A. By moving the track over it would give less room.
Q. It would give them all the surface in front of their coal?
A. By dividing between the creek and the Parkhill, do you mean?
Q. By giving this panhandle to the Hogsett and Wilson coal it would still leave the Parkhill coal all its own front?
A. I don't see why it would be more convenient.

Redirect:

Q. You think that the division as made by the railroad is the best that can be made?
A. Yes, sir.

Recross-examination:

Q. You think that simply the railroad is there?
A. Well, of course, anybody would think that; it would leave enough ground.

WILSON ROSSER, being recalled for plaintiffs, testifies as follows:

Q. I now ask you if you have made an examination of the surface land lying between the Parkhill and the Hogsett and Wilson tracts of coal, especially with reference to the topographical situation, and as to the proper method of dividing the surface with reference to the two tracts of coal.
A. Yes, sir; I have examined it.
Q. I wish you would look at the map Exhibit 8, Exhibit 1888,

No. 1, and state what, in your opinion, is the proper way to make division of the surface.

A. I think that the division should be the P., McK. and Y. railroad.

Q. With that division would, in your opinion, the Hogsett and Wilson tract have all of that surface necessary to operate a coke plant to be erected on the surface as economically as it can be done in that neighborhood, and would the Parkhill have as much as would enable it to be used economically?

275 A. Yes, sir; I think so; as far as the working of it is concerned; but a little short for houses; but I think the property sufficient to work both pieces of coal on the surface.

Q. In your opinion would the panhandle be desirable for the Parkhill tract?

A. What do you call the panhandle?

Q. That piece of surface lying above the Alexander Hill line.

A. Yes, sir; I think it is necessary to the successful operation of this piece of coal to have for that piece for siding.

Q. To have for siding?

A. Yes, sir.

Q. Do you think it would be desirable for the Hogsett and Wilson tract, or necessary, if they have the surface on the east side of the railroad—would they also require the piece on the west side of the railroad designated as the panhandle?

A. No, sir; I don't think they need it at all.

Q. Would there be sufficient opportunity for the water of the Hogsett and Wilson mine to drain through the several water-courses leading into the creek?

A. These culverts are sufficient to take off all the water that will ever come from the Hogsett and Wilson tract.

Q. Dividing the surface land in the manner that you have divided it, would this Hogsett and Wilson tract then have all the room sufficient and necessary to deposit the coke waste?

A. Yes, sir; they would have room to deposit the coke waste.

Q. What is considered among coke operators the proper and desirable number of ovens?

276 A. Well, I am not a coke operator. I am a superintendent, but that is a question I cannot tell exactly.

Q. Well, to operate 82 acres of coal?

A. Well, I heard Mr. Taylor say this morning 140 ovens for the Hogsett and Wilson and eighty-four for the other. I think that would be sufficient.

Q. You think that would be the proper number?

A. I think so; yes, sir.

Q. Where would you locate the ovens for the operation of the Parkhill tract?

A. I think as they are located on that plan. It is an elegant location for both tracts of coal.

Q. Did you examine the ground?

A. I was there and saw Mr. Taylor make the survey.

Q. I wish you would state if it would be practical, convenient,

and economical to construct the coke ovens for the operation of the Parkhill tract, beginning at a point 300 feet north of the Alexander Hill line.

A. I don't think it would. You could not get 84 ovens in there. It would take considerable of a fill and it is not a desirable place for ovens. We have considerable expense in our firm—the Alice mines. We built some ovens in the fall on a fill and we had to tear them down.

Q. I wish you would state where on the surface land which in your division would be allotted to the Parkhill tract or coal you would consider the siding necessary, in your opinion, for the proper operation of the plant.

A. Well, in my opinion, that siding should be constructed at the upper end to drop your cars down by gravity. I think it is
277 very necessary to work a plant successfully to have your switch-room at the upper end of your ovens.

Q. I wish you would state what your experience and observation has been with regard to small empty-car sidings.

A. The sidings we have at the present time is at the upper end of the ovens and we have probably a thousand feet and we haven't got any too much room for our plant and on the Sterling side we have a hundred ovens there. We have to place the cars with a horse and I find it is not the very nicest way of working in winter time for the man and the horse that hauls the cars. They have to get up all hours of the night.

Q. You say that at one place you have extra siding and at the other you haven't, and that, in your opinion, the extra siding enables you to operate the plant to greater advantage and more economically than where you haven't it?

A. Yes, sir.

Q. Then where you haven't the extra-car siding at the head of your ovens you have to use a horse to do the shifting?

A. Yes, sir.

Q. You don't have the siding because you haven't any room?

A. No room to put it.

Q. I wish you would state, Mr. Rosser, whether in estimating the desirability of the two tracts of coal, one containing 86 acres and the other containing 142—that is, the Parkhill and the Hogsett and Wilson tracts—whether in fixing their relative values you would take into consideration any fixed charges which accompany both and what they would be.

A. Well, it takes a superintendent on both sides and a yard boss and mining boss. On the hundred — forty-two acres the
278 superintendent ought to have a shipping clerk. A small plant, now, why the superintendent could attend to that business himself and see to running it.

Q. Taking that estimate into consideration, how would it affect the value of the two tracts of coal?

A. Well, that I cannot tell.

Q. Would it effect it?

A. It would affect it some, but I cannot tell the amount exactly.

Q. That would be an element you would take into consideration in fixing the values?

A. Yes, sir; that is one item.

Q. I wish you would state where, in your opinion, is the proper place to locate the engine for the operation of the Hogsett and Wilson tract.

A. Well, that engine could be located between this line of ovens here and the railroad and pull right over a shive. I think that that is the proper way it should be opened. This coal will all work to that point.

Q. Would it be necessary or desirable to have the engine located across the railroad track on the pan of the panhandle?

A. No, sir; I don't think it would.

Cross-examined by Mr. DICKEY:

Q. Mr. Rosser, you think that the 142-acre tract ought to have a shipping clerk?

A. Yes, sir: I think it would be necessary.

Q. And you don't think a shipping clerk would be necessary on the 86 acres?

A. Yes, sir.

Q. Then of course the shipping clerk would be a little additional expense?

279 A. Yes, sir.

Q. Well, Mr. Rosser, in your statement about draining the water of the 142 acres through the culverts you assume that the party owning the land would have the right to go across the other man's land?

A. Yes, sir.

Q. That water-course dries up in the summer?

A. I cannot say.

Q. It is very small?

A. The box is about twelve inches square.

Q. It is just from a spring?

A. There are some springs in one place.

Q. Now, the water which is likely to come from the Hogsett and Wilson would be quite a body of water?

A. It would be quite a body of water.

Q. That would be night and day as long as that was operating?

A. I know of places where they do not pump all the time.

Q. Pretty near all the time?

A. ——.

Q. From your knowledge of this property it would be likely to be a constant flow?

A. Oh, yes; a pretty constant stream.

Q. Now, at your mine you speak of—Sterling—you haven't any siding at all?

A. We have siding that will hold three or four cars. We have it in front of our coke ovens.

Q. Then you would not need to have a horse, would you?

A. I don't see how it would be without we had grade both
280 ways. We generally start at the east end and pull them down to the west end.

Q. Suppose you had double siding?

A. There is no room.

Q. Suppose you had in front of your ovens and the railroad company's shifter put your cars in?

A. You could if you could always get them in the right time. Our shifting engine comes in at ten o'clock, goes to Jimtown, takes water there, goes to Sterling, and takes the coke out at Sterling. Now, if we had to wait to have that engine do our work, we could never get through. We drop our cars by natural gravity.

Q. Now there is plenty of room, isn't there, in this surface land to locate as many extra sidings as may be necessary?

A. There would probably be room enough, but you could not—at the upper end you would have to pull them back.

Q. Suppose that the Joseph Hare line were run straight across, so as to be parallel with the Alexander Hill line. Now, in that case, could you not get them in above and drop them down?

A. You would leave part of your ovens, then, above where your switch would strike your yards.

A. Would that not be a trifling thing?

A. It is considerable trouble on a grade. At Sterling we have a very nice grade. It is almost level.

Q. Is it customary to have two days' supply of extra cars?

A. Well, I cannot speak of the coke region. I don't run around at other works. We have our own individual cars and we generally have some extra coal cars. We have to load twelve or fifteen cars—box cars. They will fetch those cars up, and probably
281 I get a telegram—and we require considerable room.

Q. The coke is drawn early in the morning, loaded by noon, isn't it; then those cars are taken out?

A. Generally.

Q. Then you have from noon to the next morning to get your cars for the next day'- work?

A. We generally have them brought up in the morning, usually at one o'clock. They fetch the empties up; then we drop them in in the afternoon.

Q. Then it would be unusual to have more than two days' supply?

A. No; it would not be unusual.

Q. I mean throughout the coke region.

A. At Redstone I know we have a good deal of extra siding room, and we have the same at Jimtown and Alice mines. They have considerable difficulty to get out one day's run.

Q. Would you think it was necessary to have for 84 ovens as much front as for 142 ovens?

A. No; I don't think that is necessary.

Q. Don't need that much siding?

A. ——.

Q. And the siding could be less in proportion than for the 142 ovens?

A. It could; yes, sir.

Q. Now, in your division, that creek would pass through the Parkhill property?

A. Yes, sir; the biggest portion of it.

Q. Would that be any advantage to the Parkhill?

A. At times; yes, sir; for washing your ashes out. You can't always depend on that. Last year we were—the water got
282 so low.

Q. Now, in the division suggested by you the Hogsett and Wilson coal would have no front on the creek except at the lowest end?

A. At the lower end.

Q. None on the front at all?

A. No, sir.

Q. And the party owning that coal would therefore have to take care of his ashes?

A. Yes, sir.

Q. If he hauled them down to the bridge?

A. Yes, sir.

Q. The land north of the Hill line from there down to the bridge is more or less hilly, isn't it, especially the lower part?

A. No, sir; here's the lowest point, and here's where the swamp is.

Q. Isn't there a hill on the east side?

A. Yes, sir; it is hilly there.

Q. Then the party hauling the ashes from the Hogsett and Wilson coal would have to haul over a hill?

A. That I cannot say.

Q. Whether there is room between the tracks and the hill?

A. Yes, sir; he would have to cross the tracks.

Q. Then he would either have to get them down by the tract or across the track?

A. Yes, sir.

Redirect:

Q. For a coke plant of 84 ovens how much empty-car siding do you consider necessary to have above the ovens?

A. Oh, I think there ought to be siding for 16 or 18 cars.

Q. Would there be on the surface allotted to the Hogsett
283 and Wilson tract sufficient room to put coke waste, the ashes on this side?

A. Yes, sir; they would have room.

Q. Would not under the location of the ovens, as you have said was proper and desirable—would not the oven yards extend down to the low ground?

A. To this the head extends down to the hill, but it don't require over eight feet or so to make a yard to get coke out. One man would haul the ashes on this yard, and so on this tract the same. We have a man at Sterling that hauls for the one hundred ovens.

Q. There would be still more work because there would be more ovens?

A. Yes, sir.

Recross-examined:

Q. It would be a convenience, would it not, if he had a chance to take to the creek?

A. It would be a convenience, but these ovens running down here it would be necessary, I think, to make a road and dump into the creek here.

Q. But you don't answer me definitely; would it not be convenient for the man owning the coal to have a front upon the creek?

A. It would be a convenience; yes, sir; certainly.

Q. I understand, Mr. Rosser, that you are not familiar with the coke business except in your own works?

A. I am familiar. I have been in the business eight years.

Q. Please state what proportion of the coke works throughout the coke region have sidings from 700 to 800 feet above their ovens on which they can keep at least two days' supply of cars

284 *cars* and drop by gravity?

A. I cannot tell you what proportion.

Q. You are not familiar with that question?

A. No, sir.

Q. Do you know of any coke works where they have an extra siding either above the ovens or below or parallel with the ovens where it is necessary to employ a horse?

A. I do.

Q. Where?

A. Laughlin & Company.

Q. Have they an extra siding?

Q. They have an extra siding and place with a horse.

Q. Where there is there another siding?

A. Tyrone mines.

Q. Where is it located?

A. There sidings run up along the yard.

Q. What is the grade of that siding?

A. I can't say; but I think it is about level.

Q. Then that is the reason they have to employ a horse—is because they haven't sufficient grade?

A. The grade would not make any difference.

Q. I ask you, now suppose that the division you speak of, the division you have testified to, would not the owner of the Parkhill coal have to employ a horse to haul his coal?

A. Yes, sir.

JOHN MCFADDEN, recalled for plaintiff-, testified as follows:

Q. Have you examined the surface land lying between the Hogsett and Wilson and Parkhill tract?

285 A. I have.

Q. I wish you would look at the map Exhibit May 8, 1888, Number 1, and state where you would locate the ovens for

the operation of the Hogsett and Wilson tract of coal, and how you would divide the surface so that each tract would obtain what was necessary for it.

A. I would locate them as Mr. Taylor located them on the map.

Q. What would be the proper number of ovens?

A. Well, I think it would—that is the general average given for the region. If the tracts were larger I don't think it would justify in putting that number of ovens. It is better to stretch out the life of your plant than to build a large plant.

Q. But for these two tracts of coal that is the proper number?

A. I think it is.

Q. I wish you would state how the surface land ought to be divided.

A. I think I said before in my testimony that the railroad is as fair a division of the two tracts as could be made.

Q. Why would you give the panhandle to the Parkhill tract, and why would it not be necessary for the Hogsett and Wilson tract?

A. I think the panhandle is necessary; it is necessary to have some room at the head of your ovens for storage place for cars, and I don't know as there is any more than would be just about enough.

Q. It would be necessary for which tract of coal?

A. For the Parkhill tract.

Q. Would the Hogsett and Wilson tract be conveniently accommodated for operating purposes with the surface on the east side of the railroad?

286 A. I think it would; taking from this point here to here is some 600 feet.

Q. Would there be sufficient accommodation as shown and the water-courses on the land for the water which would be discharged from the Hogsett and Wilson?

A. I think so, according to my judgment. This water, of course, would run into this run.

Q. How would it go?

A. There are two culverts, but if necessary there can be a larger one made there. The natural course of that water would be to run down hill, and the man that had the lower property would have to take care of the water.

Q. Would the surface land as you have divided—give to the Hogset and Wilson tract—be a convenient place for the deposit of ashes?

A. As convenient as most of the works in the region; and taking it at the lower end there is a very large area of ground that is from four to five feet lower than this railroad track.

Q. Would that place be as convenient for the deposit of the waste as the upper end?

A. Not from these ovens here. Hauling from there up, of course, the upper end would be more convenient, but taking the average of the hauling for the region they haul the full length of their ovens.

Q. I wish you would state where on the surface land you would locate the engine for the operation of the Hogsett and Wilson tract.

A. Right on the place marked pit mouth.

Q. In your opinion, would it be necessary—desirable—to
287 locate that engine across the railroad track on the surface immediately adjoining the Hogsett and Wilson tract?

A. No, sir; I don't think that it would.

Q. I wish you would state whether it would be either desirable or convenient to construct the coke ovens for the operation of the Parkhill tract beginning at a point three hundred feet north of the Alexander Hill line.

A. It would not be convenient or practical. It could be done, but it would multiply the expense very much in doing it. Taking from this point here, the average of the ground would be three to four feet below the railroad; this would necessitate stone-work in building your walls—the fill of your yard.

Q. Well, the difference in cost would be twice as much?

A. Yes; the difference in cost would be twice as much.

Q. Well, taking the prices of to-day, what would that amount to?

A. Taking for the single block on the Parkhill tract at the lower end would amount to, on an average, $500.

Q. Would the access to the run in front of the Hogsett and Wilson tract be desirable for the purpose of obtaining water in the manufacture of coke?

A. According to my judgment it would not. The water, the last time I was on the ground, looked very sulphury.

Cross-examined by Mr. DICKEY:

Q. Well, Mr. McFadden, are you a surveyor or engineer?

A. Well, sir; I have not done anything at surveying or engineering work since a week after I left school—since 1868.

Q. That is all the experience you have ever had?

A. Yes, sir, in a practical working.

Q. Have you any coke works of your own?

288 A. No, sir; not personally.

Q. Have you ever operated coke works yourself?

A. I have for other parties, and been interested in them.

Q. Have you made a survey of this land, surface land, you have been testifying to?

A. Not a survey. I have examined the land.

Q. How long were you on it?

A. About three hours at one time and two at another.

Q. When?

A. The last time yesterday.

Q. When before?

A. Some three months ago.

Q. Those were the only times?

A. No, sir. I passed over the surface land half a dozen times, I suppose, ten years ago.

Q. How do you know that map to be correct?

A. Well, I judge from the engineer, the reputation of the engineer.

Q. Well, you are testifying here upon the responsibility and reputation of an engineer?

A. No, sir.
Q. ——.
A. By having this map or a copy of it on the ground.
Q. Were you present?
A. No, sir.
Q. The engineer told you, didn't he, what he wanted to prove?
A. No, sir.
Q. He told how they wanted the surface land divided?
A. The only thing that I heard has been here in evidence.
Q. Who asked you to look at this?
289 A. Mr. James Cochran.
Q. I wish you would tell me how many streams there are connecting with creek, how many culverts.
A. That is, on this property?
Q. Yes, sir.
A. There are two here at the lower end. This is very near dry.
Q. It would be dry in summer time, wouldn't it?
A. Yes, sir.
Q. How much water had the other one?
A. Well, I suppose a quarter of an inch.
Q. Comes from a little spring?
A. A little spring.
Q. Then your plan for draining the Hogsett and Wilson coal assumes that the party has the right to drain all the water from that Hogsett and Wilson coal across the other man's land?
A. Yes, sir.
Q. If he didn't have the right he could not drain, could he, without going down to the north end?
A. No, sir.
Q. Will you tell me whether there isn't room north of the panhandle for parellel sidings for the Parkhill coke works?
A. No, sir; there is no room north of the panhandle to get from here onto the proper location. There is no room to switch off here. It would give them no room at the upper end of their ovens.
Q. Well, suppose that a siding starts in from lead-pencil line drawn across the Joseph Hare line, where would it touch the parellel siding?
A. About the Alexander Hill line.
290 Q. Well, in that case, Mr. McFadden, suppose a siding were put in, would it not accommodate substantially all the ovens which might be erected for the Parkhill coal?
A. Not all.
Q. How many would it leave?
A. It would leave fully this number—twelve ovens.
Q. The rest would be fully accommodated?
A. ——.
Q. And as far as the rest are concerned the siding which might be constructed in that way would answer the purpose, would it not?
A. That is as far as this would be concerned. It would for one day's work.

Q. Could not a second parellel siding be put in there where extra cars could be stored if necessary?

A. Yes, sir; I think it could.

Q. Then if a second siding were put in there would be more room for extra cars?

A. There would probably be more room for extra cars.

A. Suppose that the railroad company places those cars at the south end of the parellel siding, then is there nothing to prevent the owner of the Parkhill coal from dropping those cars down till he needs them?

A. If the siding is parellel with this he could not drop them onto the siding.

Q. Could not the cars be loaded on the storage siding?

A. Not very well?

Q. It could be done, could it not?

A. It could be done.

291 Q. Will you tell me how many coke works in the Connellsville region have sidings above the ovens capable of holding two days' supply of empty cars?

A. I don't think that there are any that have storage siding enough for two days above their ovens. Lemont comes nearer than any other.

Q. Please tell us, Mr. McFadden, how many coke works you know of have even storage room for one day's supply above the ovens where it is possible to drop the cars by gravity.

A. That is, taking all of the region?

A. Yes, sir.

A. Well, I don't exactly know if I can tell you.

Q. It is not over ten that have at the upper end?

A. I don't—probably more than that.

Q. Then, Mr. McFadden, would it be safe to say, of your own experience, that 10% had such a siding?

A. Yes; it would be safe to say that ten per cent. had.

Q. Them, Mr. McFadden, the other ovens have sidings in front of and parellel to their ovens?

Objected to as not proper cross-examination. Witness has not been asked as to the existence or non-existence, but as to what is desirable to the proper operation.

Q. All except the 10% you have spoken of have their extra siding parellel and upon the line of their ovens, do they not?

A. Not all—that is, I can't speak for all. I am speaking of the ovens that I have personal knowledge of; not as a region, but the ones that I have personal knowledge of.

Q. But there — about ten per cent.?

292 A. Yes, sir; ten per cent. have sidings above their ovens.

Q. The other 90%?

A. They have some siding above the ovens and have an extra siding in front of them.

Q. The coke ovens which do not have siding above the ovens are operated successfully, are they not?

A. Yes, sir; a great many are operated successfully.

Q. Just as successfully as those who do have sidings?

A. Well, I would suppose that it would cost the one that has them in front of their ovens more for the shifting than where the cars are dropped by gravity.

Q. Well, will you tell me if you ever knew of a railroad company charging for doing the shifting?

Objected to by counsel for plaintiff-.

A. I have never known them to charge for placing cars, but I have known them to refuse to place them, because I have been refused.

Q. You know of the railroad company taking out the full cars and then putting in the empty cars for the next day's supply without charge, except the freight paid for the transportation of the coke?

A. The — that I know of railroad companies taking out cars is that they take out the cars that are coupled up, and if you have two or more blocks of tracks they will pull out on one and couple to the other, but they have refused and left our cars standing over where they were not coupled together.

293 Q. Mr. McFadden, you have not answered my question. I asked you is it not the custom for the railroads to take out the loaded cars and put the empty cars in without extra charge to the operator; they will take them out and put them in at the same point if the operator desires it?

A. Yes, sir.

Q. That is a matter for the coke operator to settle, isn't it?

A. Yes, sir.

Q. I will ask you whether at the 90% of coke works you have testified to you have ever known charge being made by the railroad company for placing empty cars in position.

A. No, sir.

Q. How many cars would it require to carry the coke made per day by the 84 ovens?

A. About nine or ten cars.

Q. How many tons of coke would each oven make?

A. The average is about 3¾ tons.

Q. Would you not think it a very desirable thing for coke works to dump their ashes at a creek?

A. Yes, sir.

Q. Now, in the plan of division proposed by you, the only place where the owner of the Hogsett and Wilson tract could dump his ashes would be at the bridge?

A. Yes, sir.

Q. Would you not consider it necessary for a coke operator to have a front on the creek?

A. Not an absolute necessity.

Q. Is it not just as necessary for the owner of the Hogsett and Wilson tract to be accommodated with a front upon the creek as

it is that the owner of the Parkhill coal shall have a sid-
294 ing seven hundred feet long above his ovens?

A. I don't see where it is an absolute necessity for the man operating coke works to have a front on a creek.

Q. Now, will you tell me why it is absolutely necessary for the man operating coke works to have siding above his ovens capable of containing a two days' supply of cars?

Objected to as incompetent and irrelevant by plaintiffs' counsel, not proper cross-examination, and as assuming witness to have said something which he did not say.

Objection sustained.

Q. Do you say it is necessary for the owner of the Parkhill coal to have a siding above his works capable of accommodating a two days' supply of cars?

A. It is not absolutely necessary for it to have a two days' supply.

Q. Is it absolutely necessary to have a one day's supply upon a siding above the coke ovens?

A. I don't know it is absolutely necessary, but it is an advantage to have it.

Adjourned to meet Tuesday, May 15th, 1888, at ten a. m., at same place.

SAMUEL S. BROWN *et al.*
vs.
JOHN H. SHOENBERGER *et al.* } No. 18. November Term, 1887.

May fifteenth.—Parties met and adjourned to meet at same place May 22nd, 1888.

May twenty-second.—Parties met and adjourned to meet at
295 same place May 24th, 1888.

THURSDAY, *May 24th*, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; G. C. Burgwin, Esq., for plaintiff-, and G. C. Dickey, Esq., for defendant-.

ROBERT L. MARTIN, being duly sworn, testified in behalf of plaintiff- as follows:

Q. Where do you reside, Mr. Martin?

A. At Fairchance.

Q. What is your occupation?

A. Superintendent of the Fairchance Furnace Company.

Q. What business is that?

A. Coke and iron.

Q. How long have you been engaged in superintending coke works?

A. Coke works since 1873; coke ovens since 1880.

Q. I wish you would state what, in your opinion, is the proper method of constructing siding for the proper operation of the coke plant.

Q. You should have siding room in front of the ovens to store cars necessary for the operation.

Q. What amount of extra car siding is necessary or desirable for the convenient operation of the works?

A. Depends, of course, upon the size of the works. You ought to have siding room for one day's cars.

Q. Why is it, in your opinion, the proper method of constructing it to have the siding above the ovens in preference to any other place?

A. So that they can be dropped down for loading.

Q. What is the difference to the operator of that method of constructing over any other?

296 A. Well, it would depend upon circumstances. It might be necessary to have an engine in our case, where we only have one train a day. That would be a very great matter. You can't always depend upon the railroad company.

Q. It would be a great drawback not to have a siding?

A. Yes, sir; unless you have, as we have, an engine of your own.

Q. That makes an additional expense?

A. Yes, sir.

Cross-examined by Mr. DICKEY:

Q. Would siding above the ovens—enough to contain a day's supply of extra cars—be absolutely necessary?

A. I think so.

Q. Have you one at your coke works?

A. No; I use an engine.

Q. Then it is not absolutely necessary for your coke works?

A. It would be absolutely if you didn't have an engine.

Q. Will you tell me how many coke works have sidings above their ovens sufficient to accommodate a two days' supply of empty cars?

A. The Redstone works have, the Leith works have, the Youngstown coke works have, and the Connellsville Coke and Iron Company's works have.

Q. Is that all that you know of?

A. That is all that I remember at present.

Q. You can give us the number of the works you have testified to—each works.

A. The Connellsville Coke and Iron Company have five hundred ovens, and the Leith works have, I think, about 260, and the Redstone works have 416.

297 Q. And your works have how many?

A. We have forty-eight ovens for the trade; we have eighty-eight ovens; we——

Q. Will you tell me how many coke works in the region that have eighty-four ovens have the extra siding you have testified to? That is about eighty-four.

A. I know of very few coke works that haven't more than eighty-four ovens.

Q. Well, answer the question. Do you know of any coke works in that region that have more than eighty-four ovens that have the extra car siding above the ovens?

Objected to as incompetent.

Q. Please state if you know of any coke works with any more than eighty-four ovens which have the extra siding you have testified to above the ovens.

Objected to as incompetent.

A. No; I don't.

Q. Are there many works in the region which do not have the extra siding?

A. No; I don't think there are very many.

Q. Now, you have given us the names of works that you know of which have the extra siding. Do you know of any other tracts that have the extra siding?

A. I think the Ferguson works have.

Q. Do you know of any others?

A. No; I don't.

Q. Will you tell us, please, how many works you know of in the coke regions?

A. I know nearly every coke works I have been at all north of Connellsville.

298 Q. About what number of coke works do you know of?

A. I have been at nearly every coke works on the southwest branch, and I——

Q. It is necessary to get the number on the record. I want you to tell what number.

A. I know twelve that I am intimately acquainted with and I have been, as I said before, at nearly all. I think there is about thirty or thirty-five.

Q. Then out of thirty or thirty-five that you spoke of those you have mentioned above are the only ones that have an extra siding?

A. ——.

Q. You are not swearing to what you don't know?

A. Trying to.

Q. Then those that you have mentioned are the only ones so far as you know; the others have not?

A. I don't know whether they have or not.

Q. If they have not they are operated successfully, are they not?

A. Pretty hard to say whether they are operated as cheap or not.

Q. Well, you pretend to swear that it makes no difference whether they have or not.

A. I say it makes a very material difference for the storage of cars.

Q. You think the siding should contain a two days' supply of cars?

A. I prefer having it that way.

Q. Will you tell us how many you know of that have two days' supply above the ovens?

A. Leith and Redstone.

Q. Does not the railroad do all the shifting of cars without expense to the owner of the tract?

299 A. Yes, sir.

Q. Then the railroad will charge nothing for placing the cars?

A. No, sir.

Q. They will also place them for you in front of the ovens?

A. Yes, sir; they will.

Q. Wherever you say?

A. Yes, sir.

Q. And if you have a siding in front of your ovens they will place them there?

A. Oh, yes.

Q. And isn't that where you want your cars to load them?

A. You are not always ready to have them placed when the railroad company is ready—that is, where the advantage of having this siding comes in.

Q. If you have two or more parallel sidings can't you load them at any time?

A. There is only one siding that you can load on, and that is in front of your ovens.

Q. You think that a siding of that kind is essential?

A. I think so; yes, sir.

Q. Essential but not necessary?

A. You can construct the works without the siding, but if I was constructing I would want the siding.

Q. Do you say it is necessary?

A. I say it is necessary.

Q. Then all the thirty-five coke works except those you have mentioned are operated without a necessary thing?

A. As far as I know.

Q. And if they haven't they are getting along without a

300 necessary thing?

A. Yes, sir.

Q. What do you mean by necessary?

A. Something that you should have; something needed.

Q. Then you don't mean by necessary that the coke works can't operate without it?

A. Oh, no.

Q. And as far as you know five-sixths of the coke works in the region are operated without a necessary siding?

A. I don't know whether they do or not.

Q. As far as you know they do operate without a siding?

A. Oh, yes.

Q. How many cars would it take for an extra day's supply for eighty-four ovens?

A. Eight to nine cars.

Q. I believe that the ovens are operated in halves, are they not, alternated?

A. Yes, sir.

Q. How many cars will forty-two ovens produce in a day?
A. Four to five.
Q. Then why do you testify it would take eight cars for an extra day's supply of cars for the production of the ovens?
A. I understood you how many cars would you need for the drawing of eighty-four ovens.
Q. Then if you only drew forty-two ovens every twenty-four hours, four cars would be enough?
A. Four to five.
Q. How much space would that take?
301 A. About thirty-three to thirty-five feet each car.

Redirect by Mr. BURGWIN:

Q. How many ovens fill a car, Mr. Martin?
A. About four to five ovens.
Q. Well, then, how many cars would it take for forty ovens to fill? How many cars would forty ovens fill?
A. Forty ovens would fill from nine to eight or nine cars.

WESLEY H. COTTON, being duly sworn, testified in behalf of plaintiffs as follows:

Q. Where do you reside?
A. At Dunbar, Fayette county.
Q. That is in the Connellsville coke region?
A. Yes, sir.
Q. How long have you lived there?
A. I have lived in Dunbar eight years.
Q. Are you practically familiar with the operation of coke works?
A. I am, sir; to some extent.
Q. I wish you would state, sir, whether you have sufficient knowledge of the method of the operation of coke works in the Connellsville coke region and of the construction of siding for the storage of cars and the proper method of shifting the same—to state what is the proper method of operation in the construction of sidings for the operation of coke works.
A. My belief is that it is always an advantage to have siding above the ovens to stand the empties on.
Q. I wish you would state what is the method in use among the different coke works in the Connellsville region for the construction of the siding.
302 A. Well, in a majority of cases they have siding above to stand their empties on.
Q. I wish you would state whether you have made an examination of the different coke works and plants.
A. Yes, sir. I have examined forty-one or two.
Q. And what do you find their methods of construction to be?
A. In a majority of cases they have siding above the ovens wherever they can conveniently have them.
Q. How great a proportion out of the forty-one?
A. There was thirteen that didn't have extra siding above out of

the forty-one or two, but those that had no siding above had parellel sidings in nearly all cases.

Q. And what did your examination and observation show you as to the reason why the sidings were parellel instead of above?

Q. The coke works were so constructed they could not well put the siding above on account of the hill and other obstacles that come in the way of erecting the siding above.

Cross-examined by Mr. DICKEY:

Q. What is your business?

A. Justice of the peace.

Q. How long have you been justice of the peace?

A. Ten years.

Q. Have you ever been in the coke business?

A. No, sir; only as superintendent and yard boss.

Q. When was that?

A. About ten years ago.

Q. You haven't been connected with the coke business since you became justice of the peace?

A. No, sir.

303 Q. When did you make the examination of the coke works you have been speaking of?

A. Within the last three weeks.

Q. At whose request?

A. Mr. Cochran's.

Q. You went over all the coke region?

A. Very nearly all.

Q. Examined forty-one coke works?

A. Yes, sir.

Q. How many did you say you found that had extra siding above their ovens?

A. About twenty-eight.

Q. How many cars would the sidings accommodate?

A. Well, some had enough for two days' run and some enough for one.

Q. How many for one day's run?

A. Well, the majority of them.

Q. How many for two days' run?

A. Well, about two or three had enough for two days' run.

Q. Just two or three?

A. That is above the sidings, but they had parellel sidings enough to stand two or three days' run on.

Q. You are sure that there were twenty-eight?

A. About that number.

Q. Are you testifying that in each case that there was enough siding to accommodate one day's run above the ovens?

A. Yes, sir.

Q. Did you measure them?

A. Yes, sir.

Q. Well, I guess I will have to ask you to give us the names
304 of works where you found enough for two days' run of cars.

A. I can't do that unless you allow me to refer to my memorandum.

Q. You are allowed to do that.

A. Jackson mines have sixty-four ovens and three hundred fifty feet of siding above the ovens.

Q. State where the Jackson mines are.

A. About a mile above Dawson station, between Broadford and Dawson.

Q. In that case the extra siding is an extra track of the B. and O. road?

A. No, sir; I was there five years superintending, and I know that. Atlas coke works have eighty ovens and four hundred fifty feet of siding above the ovens.

Q. Where are the Atlas coke ovens?

A. At Dunbar, about six hundred yards from where I live. Anchor mines, Pennsylvania Mining Supply Company, have one hundred ovens, five hundred feet of siding above the ovens.

Q. You need not go any further with the statement. I will put another question. Please state whether in making your examination you went into the question of whether in all these cases where they have waste-car siding above the ovens the grade was such that the cars would run down in front of the ovens.

A. Yes, sir; in nearly every instance.

Q. Can you state what proportion you found to be in that way?

A. Well, I don't believe that I know of only one but what the grade was enough to let the empties drop down.

Q. Where was that?

A. That was the Jackson mines. There they have to have mule power.

305 Q. Were you at the Tyrone mines?

A. Yes, sir.

Q. How did you find it there?

A. Well, I didn't measure that siding. I just took the superintendent's word for it.

Q. How did you find it in regard to the grade?

A. I believe that they have to move the cars by horse power.

Q. Although they have siding above the ovens?

A. Yes, sir.

Q. Did you go to Laughlin's works?

A. Laughlin's are the same as the Tyrone mines.

THOMAS ADAMS, being duly sworn, testified in behalf of plaintiffs as follows:

Q. Where do you reside?

A. Connellsville.

Q. What is your occupation?

A. Supervisor on the B. & O. railroad.

Q. What is the extent of your jurisdiction?

A. I have charge of one hundred eight miles.

Q. From where to where?

A. I run from Layton to Rockwood on the main line and on all the bra*cnh*es in the coke region—that is, the Mount Pleasant, Fayette county, Morrill, State line, and Hickman run. These are known by these names among the railroad men.

Q. I wish you would state whether you are familiar as such supervisor with the methods of construction of sidings for the proper and economical operation of coke works in this region.

306 A. Well, we have put in a great many connections with the different coke works the last fifteen or sixteen years. I don't know anything about the handling of the coke works, but, so far as the putting in of the tracks is concerned and laying sidings, I have had a good deal of experience.

Q. What is the proper method of the construction of a siding for c*k*oe works that the cars may be handled properly and economically?

A. In all cases I find that coke men all want a siding as much above the ovens as possible; that is a rule among all coke works where it is possible to get room.

Q. In constructing siding, then, for the operation of the coke plants the operator uniformly requires or requests you to have the siding made at the head of the ovens wherever the surface will admit?

A. Yes, sir; wherever it can be done without going to a great deal of expense.

Q. What difference does this make in the handling of coal cars?

A. Well, I don't know what the difference in cost would be, but it would be more convenient.

Q. Have you any knowledge, as supervisor of the B. and O. road, of the difficulties in the way of supplying *of* cars to operators and the handling of their loads and empty cars where they haven't the siding at the head of their ovens?

A. Well, there is sometimes some delay in handling these cars. I know some cars are left over, not having siding there to store the cars on. There is always more or less trouble; a car may break down and the engine wouldn't be able to place those cars.

Cross-examined by Mr. DICKEY:

307 Q. Did you ever know of any difficulties where the operator had two or three parellel sidings?

A. Well, I don't know but very few works that have got these sidings. I have laid about two-thirds of all the sidings.

Q. Do you know of any difficulty?

A. I don't know of any.

Q. The cases you spoke of was where there was only one siding?

A. Yes, sir.

Q. And if a man had two or three sidings there wouldn't be any difficulty?

A. There need not be; he might have to shift with horses.

Q. You never know those having to do that?

A. No, sir.

Q. Well, if he had two or three parellel sidings he would have plenty of room to store cars?
A. Oh, yes.
Q. The railroad does the shifting?
A. They do, sir.
Q. And do not charge anything for shifting?
A. No, sir.
Q. And don't charge whether the siding is in front or above?
A. No, sir.

Redirect:

Q. Mr. Adams, Mr. Dickey asked you if you ever knew of them having to move from the parellel sidings by horses. I wish you would state whether——
A. I have seen them pull by horses to get them on another track.
308 At Franklin mines they have two sidings, and freqnently the coke men are unable to get the shifting engine and are compelled to haul them up on the outside and drop them down on the inside track.
Q. It frequently happens that the railroad is not able to supply the power to do the shifting, then?
A. There are always accidents occurring, and that will knock the coal men out.
Q. Then they have to haul by mule power?
A. Yes, sir.
Q. What grade can horses overcome in the hauling of cars?
A. Well, I can't really tell; it don't take much of a grade to stall a horse in winter time; they usually give these sidings from one to two feet to the hundred.
Q. That is for hauling with horses?
A. And to drop them down by hand, some places one to two feet and a half to the hundred.
Q. Can horses overcome the one to two feet grade in the winter?
A. It depends altogether how many cars you put on.
Q. Well, how many would it take?
A. Well, really I don't know.

Recross-examined:

Q. If there were two or three parallel sidings a breakdown wouldn't make much difference?
A. Oh, yes; you run your cars, but the difficulty would be to get to the inside track to load principally. All the other coke works in the coke regoin have standing room for cars for one day—that is, more than they need for present use. Take, for instance, Redstone,
309 Youngstown, and all those large works; they have got standing room for two days' run of cars, some for three days, and we have put in 1,800 feet of siding in addition to the individual sidings.
Q. How many ovens?
Q. Well, they have from three hundred to four hundred ovens.

Q. In the matter of these sidings whether you do have to use horses or not would depend upon the grade?
A. Oh, yes; you would have to use the horses to pull the cars up.

Redirect:

Q. If you have parallel sidings you would have to use horse power?
A. Why, yes; you would have to use horse power. I understand that you would have to.
Q. You would have to use horse power to get them up to the head of the ovens?
A. If you had grade you would have to.

Recross-examination:

Q. Mr. Adams, does not the railroad do whatever shifting is necessary for the works?
A. Well, they do in pretty much all cases.

Redirect:

Q. They do it when they are able, but they are not always able?
A. Not always.
Q. Does it not often happen that the railroad company is a considerable time in getting to do the shifting which the operator requires?
A. Yes, sir; a good many who depend upon the railroad company is very likely to get left.

310 Recross-examined:

Q. The operator loads his cars in front of his ovens, doesn't he?
A. Yes, sir.
Q. Does that before he leaves the works?
A. He does if there is room on the siding.
Q. Well, now, if the owner of the works has got two or three parellel sidings in front of his ovens is there any trouble when the railroad company puts their empty cars on one of the parallel sidings to be loaded the next day?
A. No, sir.
Q. That can be done without any trouble?
A. Yes, sir.

Redirect:

Q. They can do it without any trouble if they have the engine there at the proper time?
A. Yes, sir.

Recross-examination:

Q. They can load in new cars, can't they, until the old ones are taken away?
A. Yes, sir; if they haven't got room for two days' supply.
Q. Well, you have got to have your cars in front of your ovens?

A. Yes, sir.

Q. Then if your loaded cars were standing in front of your ovens it wouldn't make any difference how many cars you had above?

A. No, sir.

Redirect:

Q. If you had a siding below your ovens, then you could do *ti?*

A. Yes, sir; you could drop your empties down.

Recross-examination:

311 Q. How many days' run does the railroad company supply?

A. That is a question that very few can answer; sometimes the railroad company gets as high as three thousand cars in twelve hours.

Q. How many days' run is it customary for the railroad company to give coke works?

A. Some get two days' run, some three, and some none.

Q. Then it depends upon the favor of the railroad company?

A. Not so much as on the shippers.

Q. Then the amount of the load would settle the number of cars?

A. Yes, sir; that has a good deal to do with it.

JOHN H. NEWMEYER, being recalled for plaintiff-, testified as follows:

Q. I wish you would state, Mr. Newmeyer, whether since your testimony was given before you have made an examination of the surface land about to be divided in this case with a view to the proper location of the ovens and the sidings and the construction of the plant and the operation of the two tracts of coal.

A. Yes, sir; I was over the ground some.

Q. I wish you would state first what is the proper way to divide that surface and give your reasons.

A. It seems to me that the railroad would make the proper division of the surface land.

Q. Why would you divide it in that way in preference to dividing by the run?

A. Well, the run is very crooked. I don't remember how it runs. I would want the surface on that side of the railroad to operate on; the same way on the other side.

312 Q. Is it not more convenient to have the surface on the same side with your coal?

A. I think it is.

Q. Where is the proper position for the location of the coke ovens for the Parkhill tract?

A. Well, I think the upper end would be the proper place.

Q. Where would you begin the location?

A. I would begin it just below the line, very close below the line between the Hare and the Parkhill property.

Q. How many ovens would be properly constructed for the operation of the Parkhill tract?

A. About eighty. About an oven to the acre.

Q. Why would you locate the ovens beginning at that point rather than, as was testified to by Mr. Shipley and Mr. Somebody else, defendants' witnesses, beginning three hundred feet below the Alexander Hill line?

A. It is a natural location for locating the ovens on the upper end and store-room for siding above. To begin three hundred feet below and extend eighty ovens would come to a fill. I didn't measure, but from what the map shows would be a fill of ten feet, and that is not very convenient to operate ovens on; it is very expensive, besides; they will always settle unless you are very careful. I know we have built ovens and they have always settled several times.

Q. Increases the expense very much?

A. Yes, sir.

Q. What is the proper method of constructing the siding for the loading and unloading for the operation of this Parkhill tract?

313 A. A practical cokeman, if the ground is suitable, will always have siding room below the ovens for a day's run of cars, and at least one day's run of cars above the ovens. I can explain that just right here. Here you load your cars; suppose you have eighty ovens; ten cars would be a day's run of cars; now you load these cars to-day, and when they are loaded your yardmen couple them together, drop them below the ovens, and in the meantime you have a run of empties above, and you can drop them in and place them on front of the ovens for the next day's run, and the shifting engine comes up and takes your cars out, and the forenoon is the time the shifting engine has time to do your empty work; so here you are loading your cars in the forenoon; they run up your empties, and your day's work is done. You drop your loads down and drop your empties in, and that is the way a man likes——

Q. Are there difficulties and expenses connected with the shifting of the cars in any other way?

A. I suppose there would be some.

Q. Would it not be connected with a parallel siding?

A. Well, you mean to have just one parallel siding, running along in front of your ovens? Well, I don't know. I have no experience of that, any more than that I have seen. You would have to get the cars up above, in order to drop them in, if the railroad company didn't do it. You would be obliged to do it by horse power, I suppose.

Q. And for the reason given you think it is proper to allow the Parkhill tract of coal the surface which has been called here the panhandle?

A. Yes, sir

Q. That is your reason for allowing it?

314 A. Yes, sir; there is surface enough there for empty siding and this being the proper location, naturally so, for erecting the ovens.

Q. How much empty-car siding do you believe is desirable for the economical operation of the coke works of, say, eighty ovens?

A. Well, about ten cars; take thirty-five feet of siding for a car, that woudl be three hundred — fifty feet above the ovens; that would made a day's run of empty cars. In the region some days there are two or three days' supply of empty cars come into the region and some days there is none, and if a party has siding room he is likely to have plenty of cars.

Q. In that respect he has an advantage over the operator who hasn't any siding?

A. Yes, sir; they will place — where they have siding room, but I don't say that that is absolutely necessary.

Q. Very desirable, isn't it?

A. Yes, sir; for one day's run, I think, it is necessary.

Q. In your opinion, is the surface called the panhandle necessary for the operation of the Hogsett and Wilson tract of coal?

A. It would be necessary for siding above the ovens.

Q. You are speaking of the Parkhill tract; I am speaking of the Hogsett and Wilson tract with a view to what has been testified.

—. ——.

Q. What do you call the panhandle, the piece in front of Rainey's ovens?

A. Yes, sir.

—. What piece of coal do you consider that necessary for?

A. Well, now, I think, if I understand right, the surface on both sides of the run, I——

315 Q. I am talking of the surface to the west of the railroad known as the panhandle; you have already said it was desirable for the Parkhill tract of coal here for the construction of siding. Now, the witnesses for Shoenberger have said that it was necessary for the Hogsett and Wilson tract over here—ought to be allowed over there?

A. I wouldn't divide it in that way.

Q. Do you think it necessary for them to have that, to get water for the watering of the coke?

A. Get the water where from?

Q. From that run. Would you use that water?

A. Well, I don't know; you can't depend upon it.

Q. What is the character of it?

A. Wherever there is coal above it is full of sulphur; I know that by experience.

Q. Can such water be used?

A. No; the sulphur water can't.

Q. Is it necessary for the Hogsett and Wilson tract to have that surface land to drain into?

A. Well, I should think that a man would be allowed to pump the water and let it run the way it naturally would, and, more than that, I see a small culvert under the railroad, which, I think, would drain the water off; besides that, on that side of the railroad I think a man could take a pair of horses and a plow and run a furrow and

drain all that water clear down to the west end; there is no trouble at all in yhat.

Q. Dividing that surface, as you have done, would there be a convenient place for the deposit of ashes for the coke waste?

A. Yes, sir; I think there is plenty of room; I think so. The Hogsett and Wilson ovens would run down pretty well. I
316 know we have a run running through our property and we cart the ashes down to the lower end and dump them and a little rise in the run carries them all off. I think that can be done in the same way here, at the north end.

Q. Then, in your opinion a convenient place under all circumstances for the deposit of the waste in the Hogset and Wilson coal would be at the north end of the ovens at the run?

A. I think so.

Q. You have already testified upon the question of values, Mr. Newmeyer. What was the relative values of these two pieces of coal?

A. I think I placed the small piece at $500, and the other at about $400.

Q. In giving this estimate—in giving your opinion as to the relative values of the two tracts—I ask you whether or not you take into consideration the relative sizes of the two tracts.

A. Yes, sir; I would make more difference if they were both the same size.

Q. Why is that?

A. Well, the expense to improve and operate would be less expense to a large piece than to a small piece. There is some expense common to both, and the more body of coal you have the less expense it would be.

Q. What is the expense that is common to both tracts that makes the difference?

A. Well, I don't know that I would undertake to figure it out. You need a mining boss for each plant; you need a yard boss for each plant.

Q. That is one of the elements that must be taken into
317 consideration?

A. That is one.

Q. And which you have taken into consideration in your valuation?

A. Yes, sir.

Cross-examined by Mr. DICKEY:

Q. Do you know of any tract of land containing eighty acres in the coke region similarly situated to this Parkhill tract; do you know of any other?

A. In what way?

Q. As well situated in every respect.

A. Yes; there are other properties as well situated in every respect; yes, sir.

Q. Do you know of any for sale of that kind?

A. I don't know that I do.

Q. Well, there are plenty of tracts of pumping coal for sale?

A. The draining coal is generally bought up and operated; not all, but as a rule.

Q. Have you made an examination, Mr. Newmeyer, as to what the extra expense would be of getting out this pump coal?

A. I have had no experience with pumping coal.

Q. Your experience has all been with self-draining coal?

A. Self-draining coal. I know just enough to know that where you have to pump that it is an extra expense.

Q. Don't you know that the value of the Parkhill coal is nearer seven hundred dollars than five hundred?

A. No, sir; I think not.

Q. To sell it on the market?

A. No, sir; I think it would not bring that. I think five hundred would be the market price.

318 Q. Do you know of late sales of self-draining coal?

A. I don't know that I remember any lately.

Q. Now, in testifying about this division of surface, the division that you suggest would cut off the man who got the one hundred forty acres entirely from the run, wouldn't it, except down at the north end?

A. I believe that that is the only place that the run crosses the ground. Yes, sir; I think so.

Q. You would be cut off entirely?

A. Yes, sir.

Q. In case he got permission from the man who owned the intervening surface, you would suggest that he drain his water down to the lower end of the tract?

A. I would pump the water and let it run, and I think it would run under the railroad.

Q. Then your division assumes that he has the right to drain the water he pumps across another man's land?

A. The water will run its natural course; there is a run here and it runs through a culvert and into the run, and that is what I think it would do.

Q. Then you assume that in the division you make, do you, that the man getting the property on the east side of the railroad has a right to let his water run across another man's land?

A. I would just let the water run through the culverts.

Q. You would just let the water go and take care of itself?

A. I said that if a man wanted to he might make a ditch on one side of the railroad and drain it clear down to the very lowest end.

Q. Then I understand your position to be this: to accom-

319 modate the man at the eighty acres with two days' run of cars you would cut off the man with the one hundred forty acres entirely from the run?

A. I don't understand you at all. I said it was necessary for to have at least one day's supply of extra cars, Mr. Dickey, and I say so yet.

Q. Would you think it a great inconvenience if you owned the

property on the west side of the railroad to be cut off from the run and not have access at any point but at the bridge?

A. No, sir; no inconvenience whatever. I am not certain but what the water is running on that side of the railroad to-day, caused by the excavation made for the fill of the railroad.

Q. Then you say that it would be no inconvenience to be cut off from a running stream? That is your position?

A. No, sir; I didn't say that.

Q. Did you not swear a few moments ago that it would be no inconvenience to be cut off from the run, as you have done the larger tract?

A. I said that the run was not necessary. I said I didn't think it was any inconvenience.

Q. Then do you consider it no inconvenience to be cut off from access to the run?

A. No, sir; I didn't say that at all, because the run is on that side at the lower end, and I said that would be the proper place to dump.

Q. You consider it, then, just as convenient for the man having the larger tract to drain his water to the bridge and to dump his ashes at the bridge and, if necessary, to pump at the bridge?

A. As to the pumping I have nothing to say.

320 Q. Please answer that question.

A. I will. I say it is no inconvenience until you come to the pumping. I have nothing to say to that.

Q. Then I understand you that you wish us to understand that the land on the east side of the railroad would be just as convenient without any access to this run except at the point where the bridge is situated?

A. Yes, sir; I do.

Q. You would consider it just as convenient, would you, to transport all your ashes down to the bridge as to place them in front of your ovens?

A. Well, Mr. Dickey, we cart our ashes. I think the ovens on the one hundred forty acre tract come pretty near down here. I am just giving you the practical way we do this work. We cart the ashes, as a rule, whereever we have a place to dump them.

Q. Well, this is a long lecture, but it is not an answer to my question. Do you wish the master to understand you as testifying that it would not be as convenient for the man getting the land on the east side of the railroad to transport his ashes from the southerly end of the red line to the northerly end, at or near the bridge, as it would be for him to cart them over to the run and dump them there?

A. I think that is the proper place to dump the ashes, at the lower end of the oven; that is an extreme question. The half of the ovens are at the lower end and the others are at the upper end.

Q. I understand you, then, to swear that the creek would be of no benefit to the land on the east side of the railroad. Do you

321 swear it?

A. I don't swear it.

Q. Then it would be an inconvenience to the man having the land on the east side of the railroad to be shut off entirely from access to the creek?

A. It would be more convenient, but I wouldn't give anything for the water.

Q. You think it quite as convenient to drain your water at the point where the pit mouth is marked as to drain it across into the run?

A. Mr. Dickey, I have said—what I have to say is that I would take and run one furrow in a few hours.

Q. You would consider that quite as convenient as draining into the run directly from the pit mouth?

A. There would not be much difference.

Q. Have you examined to see whether the north end of the red line is not very precipitous and steep?

A. Well, I think that the bank is rather steep there.

Q. Then the man building one hundred forty ovens would have to build upon a fill?

A. No, sir; he would begin below that and leave room for the siding above.

Q. Does not the map before you show that the north end of the red line is upon very precipitous ground, and that a fill would be necessary?

A. No, sir; there is no fill on the one hundred forty-two acres that I remember of.

Q. Well, would there be access there?

A. Yes, sir; and it is very good for building ovens—bank ovens.

322 Q. Have you examined to see whether the ovens upon the west side of the railroad can be built further down?

A. They can built further down.

Q. How much further down?

A. You can build ovens anywhere where you have a foundation.

Q. In your judgment, then, could not the ovens on the west side of the railroad be placed below the line marked Alexander Hill line and quite as conveniently as above the Hill line?

A. I think below the Alexander Hill line on the map I would locate, as I said before.

Q. Then, according to your testimony, you would consider as much extra siding and as much front necessary for eighty-four ovens as you would for the one hundred forty-two ovens?

A. No, sir; I didn't say that.

Q. Your division would be giving as much front to the man having the 84 ovens as the man having the 142 ovens?

A. No; it does not.

Q. ——.

Objected to, as it does not say division of what or front of what.

A. I don't understand it, and that's plain.

Redirect:

Q. I call upon counsel for defendant- to say what he means by front.

Counsel for defendant- replies that witness has answered the question and he has nothing else to put.

Recross-examination:

Q. Are you in the coke business yourself?
A. Yes, sir; I am.
Q. Where are your coke works?
A. Located on the Hickman branch of the B. & O.
323 Q. How many ovens have you?
A. Forty-two ovens.
Q. Have you an extra siding for two days' run?
A. We have siding for seven cars; our capacity is five cars daily.
Q. And you find it very inconvenient, do you?
A. Yes, sir.
Q. Never have any difficulty?
A. Yes, sir; we have.
Q. Well, was the difficulty when the railroad failed to supply you with cars?
A. Yes, sir.
Q. And the question of supply of cars depended upon the railroad generally more than on anything else, does it not?
A. Yes, sir.
Q. How long have you been in the coke business?
A. Eight or ten years.
Q. Been in business for yourself all the time?
A. Yes, sir.
Q. Have you a stream of water near your coke works?
A. Yes, sir.
Q. In front of them?
A. Yes, sir.
Q. Do you drain into that?
A. Yes, sir; our water naturally comes right out of the pit mouth.
Q. Yours is drifting coal?
A. Yes, sir.
Q. Do you cart your ashes to this stream?
A. Yes, sir.

Redirect:

324 Q. Mr. Newmeyer, I will ask you if you know the piece of self-draining coal which is owned by J. H. Shoenberger and G. K. Shoenberger, next to the Davis tract, at the head of Dickinson run, in which James Cochran at one time had a- interest.
A. Yes, sir.
Q. Is that favorably located for operation in the way of draining?
A. I think it is.
Q. Fine piece of coal?
A. Yes, sir.

Q. How does it compare in value with the Parkhill coal?
A. One is worth as much as the other.

Recross-examined:

Q. That piece you spoke of that Mr. Burgwin asked you about is on the edge of the basin?
A. I am not certain whether there is any coal west of that, Mr. Dickey.
Q. You know of none west of it?
A. Oh, I don't say that it is on the western outcrop; I won't say there is any west of it, because I don't know.
Q. This Parkhill is not the edge of the basin?
A. That is on the extreme western outcrop, sir.
Q. Well, isn't the Shoenberger still west of that, the coal Mr. Burgwin asked you about?
A. No; that is a mile from it; don't touch it at all.
Q. Do you know the Clarissa coal?
A. I do.
Q. Isn't that west of this Parkhill coal?
A. I don't know whether it is west, but it don't join the Clarissa coal.
Q. It don't join the Clarrissa coal because the coal has been
325 mined away from it?
A. No, sir; it don't join; there is a — and the railroad running up.
Q. There is — works on the other side of the railroad, isn't there?
A. You will come to the Clarissa coal.
Q. That is west?
A. I think it would be northwest.
Q. Then the Parkhill coal is the centre of coke works?
A. ——.
Q. There is more coal still west of that?
A. I don't know that.
Q. But there is coal lying west of that?
A. Northwest.
Q. Now, in the coal about which Mr. Burgwin interrogated you, do you know of any coal west of that?
A. I never was back of that hill; it is my opinion there is not.
Q. Referring again to the map, suppose that the owner of the eighty-four ovens had two or three parallel tracks in front of his ovens, could not the extra cars be put conveniently upon this parallel siding?
A. It would be that much more trouble for the railroad company.
Q. That wouldn't cost the owner of the coke ovens anything?
A. I suppose it wouldn't.

Redirect:

Q. Would it be as convenient for the operator?
A. Just owing to whether they were above the ovens.
Q. You would want the grade?
A. Yes, sir.

326 Q. In getting the ashes away from the ovens do you take them directly across from the ovens?

A. Just owing to the way you are located. We haul some of ours to the upper end and some to the lower end. In fact, half of them in the region are hauled out on the public road, and the people that work out their road tax haul them away in the spring, and they are nearly all taken away in that way.

Q. Do you in any case take them in front of the ovens across from the works?

A. No, sir; that is a rule. You want all the surface near the works.

Q. You would have to build a trestle-work?

A. Yes, sir; they would be paid for that.

MAY 29, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; G. C. Burgwin, Esq., for plaintiff-, and Mr. Shiras, for defendant-.

JOHN K. TAGGART, being duly sworn in behalf of plaintiff-, testified as follows:

Q. Where do you reside?

A. Owensburgh, Fayette county.

Q. What is your occupation?

A. Superintendent and engineer of the Connellsville Coke and Iron Company.

Q. How long have you been engaged in that, in the coke business?

A. Ten years.

Q. Have you knowledge of the values of coke and coal in the Connellsville region?

A. Yes, sir.

327 Q. Do you know the coal and surface which is the subject of partition in this case—that is, the Parkhill tract and the Hogsett and Wilson tract of coal?

A. Yes, sir.

Q. Have you been on the land and examined it for the purpose of giving your opinion as to their values?

A. Yes, sir.

Q. I wish you would state what, in your opinion, is the relative value of these two tracts of coal, the Parkhill tract being all or nearly all self-draining, the Hogsett and Wilson tract being all pump coal, and the knowledge that the Parkhill tract contains eighty-six acres or thereabouts, and the Hogsett and Wilson one hundred forty-two acres. On that basis what is the relative value of these two tracts?

A. Well, the self-draining coal—I understand there is a portion of it that is not self-draining, and know it—but exactly what acreage is I am not able to say; twenty acres, or something like that, but I think that the self-draining coal is worth fifty ($50) dollars more an acre than the other.

Q. I wish you would state whether you examined the surface land which lies between the two tracts of coal in order to determine the proper method of constructing a plant for the operation of the two tracts of coal, the location of the ovens, and the necessary siding.

A. Yes, sir; I did.

Q. I wish you would look at the map marked Exhibit No. 1, May 8th, and state where, in your opinion as a coke operator, the surface land shown upon the map should be divided so as to give to each tract of coal surface necessary and convenient for the
328 proper operation of the coke plant for the manufacture of coke on each tract of coal.

A. I think the division is made by the railroad. How it divides it as to acreage I don't know, but I think it is a natural division and a proper division.

Q. You were pointed out the lines of the surface, were you not?

A. Yes, sir; I was.

Q. By whom?

A. It was pointed out by Mr. Cochran, Mr. Newmeyer, and the engineer here, Mr. Taylor.

Q. Where is the proper place to construct the ovens for the operation of the Parkhill tract and how many would be proper to build for the operation of that? Show us on the map.

A. The ovens should not go beyond these contour lines, because that goes into a deep valley, and these ovens would necessarily be on a fill. I suppose that would be the one limit and the other would be the extent of the ovens from that south.

Q. What is the proper number of ovens for the operation of the Parkhill tract of coal economically?

A. I don't know. In the region there you generally see an oven to the acre.

Q. What is the proper method for the construction of siding for the operation of these coke ovens on the Parkhill tract; how would you locate that on the surface?

A. I would connect with the railroad above and below.

Q. How far above the line of ovens would you connect and for what purpose?

A. Well, I would try to run a day's supply of cars above there if I could and have as much more siding room as the railroad
329 company would give me. You need all the siding room possible.

Q. For what reason; what purpose?

A. To carry a stock of empty cars.

Q. Why would you locate this siding at the head of the ovens rather than below or parallel to, and what is your experience with regard to that?

A. It would connect at head of ovens and store the next day's supply of cars in case the railroad don't come up there to handle cars—they frequently do not on account of wrecks and things of that kind—and allow the cars to gravitate.

Q. It is your experience, then, that the proper way to locate the siding is to make an empty siding above the ovens in order that

you make a stock of cars on hand to drop down by gravity when the railroad can't conveniently, for the operator, do the shifting?

A. Yes, sir.

Q. How would you locate and how many ovens would you locate on the surface land attached to the Hogsett and Wilson tract for the proper operation of it?

A. I would carry that about the same basis, about an oven to the acre. I don't see why there should be any difference.

Q. Where would you locate these ovens; can you show us on the map?

A. The same way as in the other. It has the same dumping-off place.

Q. Well, would the location on the map, then, be proper, the one marked one hundred forty-two coke ovens?

A. ——.

Q. Well, I mean would they run and not extend past the
330 proper location for the number of ovens?

A. Indeed, I don't know that extent, Mr. Burgwin; it would be one hundred forty times fourteen feet, whatever that makes—1,960 feet.

Q. What is the proper width of an oven?

A. We place ours fourteen feet from centre to centre.

Q. I wish you would state whether, in your opinion, the division of the surface land you have made would give to the Hogsett and Wilson tract all the necessary and desirable surface for the operation of the plant as much as can be obtained out of the surface as it exists.

A. I can't see, Mr. Burgwin, but what the ovens are about equal or even in that division of the land.

Q. Your opinion is based upon the fact that assuming it is a fair division is a natural one?

A. I do; yes, sir.

Q. What is sufficient surface to operate a tract of eighty-six acres?

A. I am not prepared to answer that.

Q. I wish you would state whether, in your opinion, the surface land lying between Rainey's ovens, as shown upon the map, and the railroad track in front of the Hogsett and Wilson tract is necessary so as to enable the Hogsett and Wilson operator to draw water from the run to put out his ovens and bank his cook. Would the Hogsett and Wilson owner need that water for that purpose?

A. Well, I guess that water in that tract is not very valuable to either tract in summer time.

Q. What is the character of the water?

331 A. It is mine water.

Q. Well, is that desirable for use in coke plants?

A. It is not desirable; it is sometimes used, but it is not desirable.

Q. Is that surface of which we are now speaking and which has been before called the panhandle lying in that shape necessary for the Hogsett and Wilson coal to drain their water pumped out of the mine over?

A. It is not necessary for that; there are small culverts under the railroad there.

Q. Does not the division of the surface as you have made it by the railroad afford convenient means for the Hogsett and Wilson operator to distribute any waste ashes from the ovens, as convenient as a fair division of the land admits of, or would the division as made by Mr. Shipley and some of the witnesses for the defense in this case make a more convenient arrangement for the disposition of the ashes?

A. The ashes could be as easily deposited at the lower end of the ovens as at the upper end on that side of the railroad. They would have to be hauled across there and deposited above the railroad, whereas there is a better place to deposit down here.

Q. Which division of the surface land, in your opinion as a coke operator, with your experience and knowledge of the method of constructing plants, would be the most desirable in case these two tracts of coal were put upon the market and you had your choice of the division of the surface?

A. I would choose the railroad. That gives you in both cases an opportunity of an upper and lower connection.

Cross-examined by Mr. SHIRAS:

332 Q. Mr. Taggart, on what facts do you base your estimate that fifty ($50) dollars an acre is a fair allowance for the difference in value between the self-draining coal and the coal that pumps?

A. Why, on a knowledge of what it costs to pump mines and the fact that the lower coals will produce more coke than the self-draining coal. As to the exact quantity I don't know, but I know that the fact exists.

Q. Well, now, what constitutes and what is the expense—what are the elements that enter into the expense of pumping coals?

A. Steam pumps, pipes, and haulage.

Q. And how much expenditure would be necessary to provide a pumping apparatus for this tract of one hundred forty-two acres? What would you figure at being the expenditure for machinery? Have you figured on that?

A. No, sir; I have not.

Q. Do you know how much expenditure would be necessary in the way of wages—how much would be expended in the way of wages for pumping this tract of one hundred forty-two acres?

A. I think it could be pumped for fifty dollars an acre.

Q. You think it could be pumped for fifty dollars an acre. Well, are you speaking now of the wages?

A. The wages and the keeping up the pumps.

Q. Well, you said that you didn't figure out on what expenditure would be necessary for the machinery; then I asked you what you thought it would cost in the way of wages to pump this field while it is being worked.

A. In my judgment, it should be done for fifty ($50) dollars an acre.

333 Q. Do you mean that as a reply to my question that I put to you?

A. Yes, sir.

Q. I understand you to say, Mr. Taggart, that you don't know the area of surface that is on one side or the other of this railroad?

A. No, sir; I don't.

Q. You made no measurement of it when pointed out to you?

A. No, sir.

Q. Your selection of the place where the ovens for the Parkhill tract should be placed is made, is it not, upon a consideration or regard for the Parkhill tract alone?

A. Yes, sir.

Q. You do not consider in that answer in making that selection what the effect of the ownership of the adjacent property by Cochran and Brown would be upon that?

A. I don't anything about that, sir.

Q. Does not the gulley or ravine through which the stream runs afford a proper place for putting the ashes and débris for the respective tracts?

A. No, sir; not in my judgment; we don't do it at home.

Q. Then your idea is that these ashes can be best disposed of by loading them on cars and running down to the lower end of the tract?

A. Carts taking them down; yes, sir; regular ash carts.

Q. And is that your view with respect to the ashes and débris from both pieces?

A. It is; yes, sir.

Q. Do you know anything about the nature of the water that is on the lower piece there, its depth or amount, on the Hogsett
334 and Wilson piece, the amount of water there would be in the mine?

A. No; I do not.

Q. What works do you say you are connected with?

A. Connellsville Coke and Iron Company.

Q. Where is that field?

A. It lies east of this.

Q. How far distant?

A. Two miles.

Q. Is it pumping coal or self-draining coal?

A. Pumping coal.

Q. Wholly?

A. Whole 9,000 acres; yes, sir.

Q. How long have you been in their employ?

A. Nine years.

Q. Your entire experience and connection with coke works is ten years?

A. Ten years; yes, sir.

Q. You have been nine years in the employ of this company?

A. Yes, sir.

Redirect:

Q. Mr. Taggart, in answer to Mr. Shiras' question with regard to the basis you had for fixing the valuation of fifty ($50) dollars an acre on the surface coal more than on the pump coal, you replied, The cost of the operation of pump coal. I ask you whether there are other elements that are taken into consideration in fixing this relative valuation of these two tracts, one containing eighty-six and the other one hundred forty-two acres.

A. There is; yes, sir; in the volume of business.

335 Q. How does that affect the relative values?

A. The greater acreage there is the greater tonnage. The volume of business is in favor of the large tract.

Q. Did you take that in consideration also in fixing the relative values of these two tracts?

A. Yes, sir.

JOSEPH L. ROBBINS, being duly sworn in behalf of plaintiffs, testified as follows:

Q. What is your occupation, Mr. Robbins?

A. Yard boss.

Q. For what company?

A. B. F. Keister & Co.

Q. How long have you been engaged in the occupation of yard boss?

A. Nearly ten years.

Q. How long have you been familiar with the operation of coke plants?

A. About fifteen years.

Q. What are your duties as yard boss?

A. My duties are to see that the ovens are drawn properly, loaded into the cars, the cars placed and coupled together after loading, and keep the time for all work outside.

Q. To see that the ovens are drawn and loaded into the cars and that the cars are placed in position for that purpose?

A. Yes, sir.

Q. I wish you would state your construction of a coke plant—how, in your opinion, the siding for the standing and loading and shifting of the cars should be constructed for the convenient and economical working of the plant.

A. Well, that would be all owing to the location of the ovens.

336 Q. Well, how would you locate it, supposing that you had the surface to locate it, in the way you considered the most desirable and economical, above or below the ovens or parallel or behind them?

A. I want my track in front of the ovens, and I would want room enough to have empty cars standing over in case something would happen that the railroad could not take out the loads you loaded that day, or possibly you might want to load extra coke, and if you have room above you can drop your loads down, and then you have room to bring your empties down and load the *the* extra coke.

Q. Well, then, in constructing your siding how would you construct with reference to its being above or below the ovens?

A. At the far end of the ovens—that is, at the end farthest away from the railroad.

Q. With reference to the grade, what grade would you want?

A. In my opinion it would not make any difference.

Q. You speak of dropping the cars down.

A. The question about the grade, how do you mean that?

Q. How should the grade of the empty-car siding be? It ought to be higher than the track in front of the ovens or below it? You speak of dropping the cars down.

A. They would always have to run towards the railroad, certainly.

Q. It would be much higher than in front of the ovens?

A. Yes, sir.

Q. Why would you construct it in that way? What advantage does that have over any other constructions?

A. It saves a power. If you have the grade the other way you cannot work it very well without a locomotive.

337 Q. Well, can you give an estimate of the value to an operator having such a siding over the operator who has no siding by which he can store his empties and drop them down in front of the ovens?

A. That is, what the difference in value would be?

A. Yes.

A. No; I cannot make an estimate.

Q. What advantage would he have, or how would the other operator who hadn't the siding be under a disadvantage?

A. Why, he would be under a disadvantage in a great many ways. In the first place, there are times when cars are scarce; that if he hadn't room he would be very often without cars on that account, and there would be times when he would have to draw his coke out and lay it aside and load it on afterwards.

Q. You have had experience in that?

A. Yes, sir.

Q. And you know that that does happen to the operator who hasn't extra car siding above?

A. Yes, sir.

Cross-examined by Mr. SHIRAS:

Q. Whereabouts are the works of Keister and Company?

A. Situate at Owensburgh, Fayette county.

Q. About how far from the situations of these tracts of Cochran and Shoenberger?

A. About six miles, I should judge.

Q. Are you familiar with these two tracts, the Hogsett and Wilson and the Parkhill tract?

A. No, sir.

Q. You never made any particular examination of them
338 or measurements?
A. No, sir; never.

Adjourned to meet Tuesday, June 5th, 1888, at same place, at ten a. m.

SAMUEL S. BROWN *et al.*
vs.
JOHN H. SHOENBERGER *et al.*
} No. 18. November Term, 1887. In Equity.

JUNE 5, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; G. C. Burgwin, Esq., for plaintiff-, and C. C. Dickey, Esq., for defendant-.

It is admitted by counsel that the plaintiffs in this case are the owners of the tract of coal adjoining the Parkhill tract, containing about one hundred forty acres, being the John Work farm, and that by virtue of such ownership the plaintiffs are entitled to have allot-ed to them in severalty the Parkhill tract of coal at such valuation as the master, upon the evidence, shall determine, together with such portion of the surface as the master shall determine.

JAMES COCHRAN, being duly sworn according to law, testifies as follows:

Q. Where do you reside, Mr. Cochran?
A. I reside at Dawson, Fayette county.
Q. How far from the coal which is being divided in this case?
A. About a mile, a good mile.
Q. How long have you lived in that neighborhood?
A. I was raised there; sixty-five years.
Q. You are engaged in the coke business?
339 A. Yes, sir.
Q. How long have you been in the business?
A. Well, ever since '64.
Q. And when did you begin the manufacturing of coke?
A. In 1842 or 1843.
Q. Have you bought and sold much coke or coal land in that neighborhood?
A. Yes, sir; traded around a good deal.
Q. Both the drain and pump coal?
A. Yes, sir.
Q. How long have you known these two tracts of coal, the Hogsett and Wilson and the Parkhill tract?
A. I have known them for years.
Q. Are you familiar with the cost of operation, of the relative cost of operation, of pump coal and drain coal?
A. Yes, sir; some.
Q. Do you know the relative values of pump coal and drain coal in the market in this neighborhood?
A. Well, I know about the difference that has been made around that neighborhood.

Q. I wish you would state what is the difference in value between the Parkhill tract of coal and the Hogsett and Wilson tract per acre.

A. Well, we would be willing to allow one hundred dollars per acre difference to make the railroad the line; give us the surface on the west of the railroad with the Parkhill tract. One hundred dollars would be a big difference, I should think.

Q. Well, without all the surface on the west side of the railroad do you think that the Parkhill tract would be worth even
340 that difference?

A. No; I wouldn't want to make that difference if I didn't get all the surface on the west side of the railroad.

Q. You wouldn't want the Parkhill tract unless as an operator you got all the surface on the west of the railroad?

A. No; I would give up our right to the Parkhill tract and take the Hogsett and Wilson with the surface on the east side.

Cross-examined by Mr. DICKEY:

Q. Mr. Cochran, do you know of any self-draining coal for sale within the region?

A. Why, yes; I believe I do. I think the two hundred twenty-eight acres could be bought for a good deal less money than this.

Q. Well, is that all you know of for sale?

A. There ain't very much of any kind of coal there any more; it is about all taken but pumping coal, and the whole business——

Adjourned to Tuesday, June 12, 1887, at 10 a. m.

In the Circuit Court of the United States for the Western District of Pennsylvania.

S. S. BROWN and HARRY BROWN, Partners, &c., as W. H. Brown's Sons, and JAMES COCHRAN *vs.* JOHN H. SHOENBERGER and GEORGE K. SHOENBERGER.	No. 18. Nov. Term, 1887. In Equity.

And now, to wit, June 12, 1888, met pursuant to adjournment, at the office of the master, Grant, and the taking of testimony
341 proceeds.

Appearances: C. Hasbrouck, master; George C. Burgwin, Esq., for plaintiff-; George Shiras, Jr., for defendant-; Marshall H. Reno, stenographer.

CHARLES DONNELLY, a witness called on behalf of defendant-, being first duly sworn, testified as follows on direct examination by Mr. SHIRAS:

Q. What is your business?

A. Coke business.

Q. How long have you been in the coke business?

A. About ten or twelve years.

Q. Have you been in that business on a considerable scale?

A. We have about fifteen hundred ovens now.
Q. Have you bought or sold coke lands?
A. I have bought coke lands.
Q. In your judgment, is there any difference in the market value betwe-n coke lands of such physical character that they drain themselves when they are mined and those that are under water and require pumping as fast as they are mined?
A. Yes, sir; very considerably.
Q. Which is considered, other things being equal, the more valuable?

Objected to as not rebuttal, the defendants already having closed their case.

A. I consider drift coal, the one that drains itself, the more valuable.
342 Q. Well, in what proportion—say by the acre?
A. I suppose—I am not a very good judge at that—I suppose two hundred and fifty or three hundred dollars.
Q. Give, in a general way, your reasons for making that difference.
A. Well, from our experience we find that we do not have to have any machinery; don't have to pump or stop the works at any time and we don't have any expense. It is hard to tell, really, the difference in the value.
Q. There is the matter of machinery and of extra labor, is there not?
A. Yes, sir.
Q. And what have you to say in case of the stopping of the works by reason of strikes or anything of that kind?
A. There is no expense attached to a mine that drains itself or it has not the general expenses that there is in the other case.
Q. Suppose the case of adjacent tracts of land or coal; one of them is self-draining and containing eighty-six acres; the other, sloping the other way, with the water accumulating and containing one hundred and forty acres. How would you compare their values as tracts?
A. Well, if I was the buyer and that was the state of the case, I would give as much for the eighty-six acres as I would for the one hundred and forty, if the case was just as you stated. One was subject to pumping and shafting and one thing and another and the other drains itself.
Q. What has been the experience of your firm, have you had both kinds of property?
A. Yes, sir; we have, with a shaft and without.

343 Cross-examination by Mr. BURGWIN:

Q. Have you ever seen the coal land that is the subject of partition in this case?
A. No, sir.
Q. You don't know anything about this particular coal land?
A. No, sir.

Q. Would you be prepared to say, without having seen it, that you would give the price that you have mentioned for the tracts of coal?

A. Well, from the explanation that I have tried to gain on this piece of property, I would.

Q. Would what?

A. Give the difference that I have stated.

Q. Supposing that your information was correct?

A. Supposing that my information was correct.

Q. How did you get the information—from whom?

A. Mr. James S. Devlin.

Q. Can you give me, Mr. Donnelly, what the information was that was given you?

A. Well, I asked Mr. Devlin before this case came up—we were talking, trying to get hold of this property—and Mr. Devlin was our engineer, and in that conversation I asked him, I said, "Now, Mr. Devlin" (I will give you just what I said), "If I was buying that land I would rather take the eighty-six acres that drains itself than the one hundred and forty acres;" said I, "would I be right in that?" Said he, "In my judgment," said he, "I think that would be about fair."

Q. That is what you base your opinion on?

A. That is what I base my opinion on.

344 Q. That is all you know about it?

A. That is all that I know about it; yes, sir.

Mr. SHIRAS:

Q. The general opinion that you gave was based upon your experience with respect to your own property and not with respect to any special knowledge of this piece or these pieces?

A. And information that I had about this case from the talk with Mr. Devlin.

Q. But beyond that interview with Mr. Devlin you have no special knowledge of these pieces?

A. No, sir.

Q. And the opinion that you have expressed is based upon your general experience?

A. Yes, sir.

The MASTER:

Q. Where are your coal works?

A. Fayette and Westmoreland counties.

Mr. SHIRAS:

Q. And how far is the nearest of them from these properties of Shoenberger & Cochran?

A. Eight or ten miles; between eight and ten miles.

Mr. BURGWIN:

Q. I don't think Mr. Donnelly stated the name of the firm.

A. The McClure Coke Company.

Q. You are the financial member of that firm?
A. Yes, sir; that is what I attend to.
Q. What are your duties?
A. When there — any purchases made I generally attend to the money matters.
345 Q. But as to the purchases themselves?
A. I never pay any attention to that; no, sir. That is how I come to get this information; it was with regard to the money.
Q. I understood you to say that your information as to the values of these two tracts of land is derived from Mr. Devlin?
A. Yes, sir.

H. C. FRICK, a witness called on behalf of defendant-, being duly sworn, testified as follows on direct examination by Mr. SHIRAS:

Q. What is your business?
A. Manufacturing of coke.
Q. What is the name of your concern?
A. H. C. Frick Coke Company.
Q. How long have you been in that business?
A. Since 1871.
Q. Has the business of your concern been large?
A. Yes, sir.
Q. Where do the properties of it lie?
A. In Fayette and Westmoreland counties, this State.
Q. Do you know the property of Shoenberger & Cochran?
A. I have an idea; yes, sir.
A. How far is it from your works?
A. I think we have works within between three to five miles. We have some coal lands that lie pretty close to it.
Q. Speaking from your experience and knowledge, is there any difference in value between drift coal—that is, coal that is self-draining in the mine—and coal that requires pumping to get the water out?
A. Yes, sir.
346 Objected to as before.
Q. Speaking in an average way, what is the amount of that difference, in your judgment?
A. Well, it is at least five cents a ton over the cost of manufacturing coke, at the very least, in favor of drift coal—that is, you can manufacture drift coal into coke at least five cents a ton cheaper than you can where you have to pump your water.
Q. What is the average tonnage of an acre of coal in that neighborhood?
A. Well, you can manufacture between six and seven thousand tons of coke out of an acre of coal.
Q. What are some of the causes and reasons for that difference?
A. Well, it requires machinery to hoist your coal and pumps to pump your water.

Q. What is the nature of that machinery? Is it expensive or otherwise?

A. Yes; the right kind of machinery is expensive. Then you are always running the risk of fires and burning down your shafting and buildings, stopping your works, and you have to stop mining, and in the drift mines you have none of these things.

Q. In case of the stoppage of the works, either of account of strikes or want of demand, is there any expense attending the keeping up of the pumping to keep the water out of the mines?

A. Yes, sir.

Q. That continues to run?

A. Right along.

Q. Do you know this property of Cochran & Shoenberger
347 that is the subject of partition here?

A. I don't know very much about it. I think I have been on the property or passed over it, but I have never examined it, though. I could not give you any idea of values, only the difference between drifting and draining property.

Cross-examination.

By Mr. BURGWIN:

Q. What are the elements upon which you base your opinion of the difference of five cents a ton?

A. I base it on experience in rating drift mines, shafting, and slopes.

Q. What are the elements?

A. Well, the cost of hauling the coal out of the mines, pumping the mines, and you have a good many incidental expenses connected with shafting or slope mines which you do not have in the drift mine. Nobody knows that better than Mr. Cochran does.

Q. I know there is a difference, but the only question is what it is.

A. I can hardly give you all the items, but our experience has been at least five cents a ton difference. I always estimate it by three hundred dollars an acre. I always pay that much for drift coal.

Q. In comparing two tracts isn't the variation of the difference in value in accordance with their different situations—the different modes by which the two tracts can be operated, the ovens constructed, and the way you have to get the coal from the pit mouth into the ovens? Wouldn't all these make a difference in the
348 value of properties in the estimate which would be put upon their respective values?

A. Yes, sir; I have taken that into consideration. I say under the most favorable circumstances there is a difference of at least five cents a ton.

Q. Well, what would be "the most favorable circumstances"?

A. Well, I would have to be on the ground to show you to enter into particulars. We have about sixteen or seventeen different

mines, a number of shafts, a number of slopes, and a number of drifts.

Q. Well, what is the most favorable operation in your drift mines?

A. In our drift mines?

Q. Yes, sir.

A. Well, I believe the Summitt works is about as good as any we have, what is known as Summitt works, where the coal drains itself. It comes right out of the top of the ovens, and we bring it out by the mules.

Q. Well, if the coal or any part of the coal in the two tracts which you are comparing—if the coal in any part of the drift tract would have to be elevated for getting it into the ovens, would that make a difference in the valuations of the two tracts?

A. Yes, sir.

Q. In drift coal?

A. Yes, sir.

Q. Suppose it was self-draining, but that it had to be elevated?

A. Elevated by steam power?

Q. Well, by some method dependent upon the operator.

A. Yes; it would make some difference, but I think even
349 then five cents a ton is a very low estimate. It is a difference between draining and non-draining coal—that is, five cents a ton on coke, I mean.

Q. Then, as I understand you, your opinion is this, Mr. Frick: That there is a real difference of five cents a ton in favor of drift coal over pumped coal—five cents a ton in the coke manufacture—by reason of the fact that you have to pump the deep coal and that *that* the drift coal is self-draining?

A. Yes, sir.

Q. Which may be varied according to the circumstances connected with the operation of the two tracts which may be under consideration?

A. It would hardly ever be lower than that. It is more likely to be higher.

Q. But you don't answer my question.

A. Well, yes, I have answered your question. That coke can be manufactured five cents a ton cheaper from self-draining coal than coal that had to be drained.

Q. The point is as to whether the draining itself will make that difference.

A. Yes, sir; I think it will.

Adjourned to meet Tuesday, June 19th, 1888, at ten o'clock a. m.

SAMUEL S. BROWN *et al.*
vs.
JOHN H. SHOENBERGER *et al.*
} No. 18. November Term, 1887. In Equity.

Met at the office of C. Hasbrouck, Esq., master, at ten-
350 thirty a. m.

Present: C. Hasbrouck, Esq., master; G. C. Burgwin, Esq.,

counsel for plaintiff-, and George Shiras, Esq., and C. C. Dickey, Esq., counsel for defendant-.

JUNE 19, 1888.

Col. JAMES M. SCHOONMAKER, being duly sworn according to law, testified in behalf of plaintiffs as follows:

Q. What is your business?
A. Manufacture of Connellsville coke.
Q. How long have you been engaged in that business?
A. About fifteen years.
Q. Entirely?
A. Yes, sir. That is my only business.
Q. You own both drift mines and pump mines; drift coal and pump coal?
A. I have mines of both characters.
Q. And are familiar with the modes of operation of both classes of mines?
A. I am.
Q. I wish you would state whether you have seen and whether you know the character of the two tracts of coal which are in partition in this case—that is, the Parkhill tract and the Hogsett and Wilson tract.
A. Only to pass them in the cars.
Q. One is called pump coal and the other drift coal. I wish you would state whether you can tell us the relative values of these two tracts of coal.
A. I cannot.
Q. Why not?
A. For lack of knowledge.

351 Q. Can you, as an operator, give us the relative values of pump *pump* coal and drift coal in the abstract?

A. I cannot form an opinion without knowing definitely the properties and the consideration.

Q. Why cannot the relative values of pump coal and drift coal be fixed without this knowledge which you say you want?

A. For the reason that all the conditions existing that would cover the cost of converting the coal into coke would have to be considered in determining the value of the coal. I mean by that to say that coal that would be self-drain- and would run out of the mine by gravity on top of the ovens could be made into coke for less money than coal below the water level that would have to be lifted and the water pumped from the mine. The coal in the former case would be worth more money than the latter, but what these conditions are, the depth of the coal, the amount of water, whether it would be possible to drain that water elsewhere—all that would have to be taken into consideration in determining the value of the coal itself.

Q. Therefore you would require an examination of the ground and of the conditions under which the tracts of coal would have to

be operated before you could answer what the relative values of these two tracts would be?

A. Certainly I would.

Cross-examined by Mr. SHIRAS:

Q. What are the principal matters that cause the self-draining coal to be worth more than the coal that requires pumping; what are the principal items of cost?

A. You mean, Mr. Shiras, in favor of the drift coal?

Q. As against the pump coal.

A. The fact that the water will drain itself from the mine
352 without cost of handling, and that as a rule the ovens can be located below the pit mouth, so that the coal by gravity will come out of the mine on top of the ovens and save the expense of lifting.

Q. What are the principal sources of expense in keeping a mine free from water that requires pumping?

A. The depth from which the water has to be pumped and especially the character of it.

Q. Well, have you nothing to say about the necessary machinery?

A. Oh, yes; pumps are necessary, of course; boilers, pumps, suction and discharge pipes, steam pipes, and men to operate.

Q. And is there not a source of difference in favor of the self-draining coal in the particular that in case of a stoppage of the works by reason of strikes or failure of transportation facilities, or stoppage from any cause—is there not a disadvantage in having to keep the pump going in order to keep the mine free from water?

A. There is a disadvantage.

Q. And keeping the necessary men employed?

A. Yes, sir.

Q. But as to fixing what pecuniary difference should be allowed in a partition between two pieces, you don't feel able to fix that because you haven't made an examination of the premises?

A. For that reason only.

Adjourned to meet June 26, 1888, at same place, at ten a. m.

353 SAMUEL S. BROWN *et al.* *vs.* JOHN H. SHOENBERGER *et al.* } No. 18. November Term, 1887. In Equity.

JUNE 26, 1888.

Parties met and adjourned to meet Tuesday, July 3, 1888.

JULY 3, 1888.

Parties met.

Present: C. Hasbrouck, Esq., master; C. C. Dickey, Esq., counsel for defendant- and G. C. Burgwin, Esq., counsel for plaintiff-.

JOHN MCFADDEN, recalled for plaintiff-, testifies as follows:

Q. Mr. McFadden, have you examined the two tracts of coal which *we* were divided between the Shoenbergers and Brown and

Cochran in the proceedings in partition at No. 48, November term, 1886, which lie in the neighborhood of the coal now divided, one of those tracts being known as the Henderson tract and containing 228 acres, and the other the Boyer tract, containing about 208 acres?

A. I have.

Q. You have already stated that you have examined the two tracts of coal in partition in this case?

A. I have.

Q. What are the general characters of the two tracts of coal in each case?

A. That is, the lay of the coal?

Q. That is, as to pump and drainage.

A. I think they are very similar. Of course the upper tract is much larger than the lower tract—that is, the tract is larger than the present one in partition.

Q. In the former partition, as in this one, one of the tracts
354 was self-draining coal and the other pump coal. In your opinion what is the difference, if any, between the relative values of the two tracts of coal?

A. I don't think there is any.

Q. If the difference between the drain coal and the pump coal in the former partition was $50 an acre in favor of the drain coal, what is, on that basis, the difference in value between the *the* drain coal and the pump coal in this case?

A. I think they are about equal.

Q. Would be the same?

A. Yes, sir.

Q. That is, supposing it was fixed by the former partition, it would be the same in this case?

A. Yes, sir.

Q. How near together do these tracts of coal lie—that is, the coal divided in the former partition and that divided in this?

A. I should judge about half a mile apart.

Counsel for defendant- objects to foregoing testimony because it is not admissible to prove value by proof of single instances of value, and for this reason move- the master to strike out the evidence given at this time by Mr. McFadden.

Cross-examined by Mr. DICKEY:

Q. Mr. McFadden, in the case of the other coal you testified to in the former partition would not all of the pump coal drain to one point?

A. Yes, sir; I think it would.

Q. Do you know what the depth of that point was—the point to where it would drain?

A. I don't accurately remember the depth.

355 Q. About what?

A. I don't suppose more than eighty or ninety feet.

Q. Do you know whether it would be that deep?

A. No; I won't be certain about it being that depth; it might possibly be that or less.

Q. Do you know the point at which the coal would be hoisted out?

A. I can't say where it would be hoisted out; it would depend altogether upon the man.

E. D. TAYLOR, being recalled for plaintiff-, testified as follows:

Q. You examined the coal which was divided between the Shoenbergers and Brown and Cochran in the partition at No. 48, November term, 1886, as well as the two tracts of coal now being divided?

A. I examined them and made a survey of both tracts.

Q. What is the character of the two tracts in each case?

A. In the first there is 228 acres of self-draining coal and 208 acres of pump coal; in the present there is 86 acres of self-draining coal and 145 acres of pump coal. The two tracts in the former division and in the present are similarly situated with regard to drainage.

Q. The two *two* tracts of self-draining coal are situated relatively about the same as to their drainage, and the two tracts of pump coal?

A. Yes, sir; they are.

Q. And the means of pumping and the methods of operating?

A. Yes, sir; excepting that in the former division the drainage coal lies a little higher above the level of the railroad than
356 the Parkhill tract does in the present.

Q. In your opinion and from your examination, what is the relative difference between the two tracts of coal in each case?

A. The difference in value between the two tracts of coal in the former case was $50 an acre, and that same difference will cover the difference in value in the present case.

Q. The Parkhill tract of self-draining coal has no advantage to enhance its value over the self-draining tract of Henderson coal in the former partition as compared with the pump coal in this case?

A. No, sir; rather the coal in the former division was a little more favorably located than the Parkhill tract, because it lies higher above the railroad.

Counsel for defendant- object to the foregoing evidence for the reason that it is not competent to prove value by proof of single instances of value or by reference to single instances of value, and for this reason move the master to strike out this testimony.

Counsel for plaintiff- offers in evidence the master's report and decree of the circuit court of the United States for the western district of Pennsylvania, at No. 48, November term, 1886, as evidence of the relative value of pump coal and drain coal and as evidence of the relative value set upon the two kinds of coal as claimed by the defendants in that case, who are the defendants in this case and by way of estoppel as against these defendants.

Objected to by counsel for defendants as generally incompetent and irrelevant.

Evidence closed on both sides July 3, 1888.

C. HASBROUCK, *Master.*

Filed Oct. 11, 1888.

H. D. GAMBLE, *Clerk.*

357 *Memorandum Referred to in Testimony of Wm. H. Cotton Before the Master.*

Jackson mines, sixty-four ovens, three hundred fifty feet of siding above the ovens.

Laughlin & Company's works, one hundred forty-six ovens, one thousand feet of siding above the ovens. (Did not measure this siding; took Supt. McWharton's word for it.)

Atlas coke works, eighty ovens, four hundred fifty feet of siding above the ovens.

Anchor works, Pennsylvania Mining and Supply Company, one hundred ovens, five hundred feet of siding above the ovens.

Lamont Furnace Company, operated by R. Hogsett, one hundred thirty-five ovens, six hundred feet of siding above the ovens.

The Youngstown coke works, Cambria Iron Company, two hundred forty ovens, four hundred twenty feet of siding above the ovens.

H. C. Fricke mines, Broadford, one hundred five ovens, five hundred feet of siding above the ovens.

Centre coke works, Tarr station, two hundred four ovens, four hundred feet of siding above the ovens and twenty-four hundred feet below the ovens.

Summit mines, H. C. Fricke & Co., one hundred and forty-two ovens; two sidings above the ovens, each six hundred and sixty feet long.

358 Eagle mines, eighty ovens, two sidings above the ovens, each two hundred forty feet in length.

Morgan mines, one hundred sixty-five ovens, thirteen hundred and fifty feet of siding above the ovens.

Southwest coke works No. 2, sixty-six ovens, twelve hundred feet of siding above the ovens.

Southwest No. 3, seventy ovens, two hundred seventy feet of siding above the ovens.

Diamonf coke works, sixty-six ovens, two hundred fifty feet of siding above the ovens.

Joseph Stouffer's coke works, forty ovens, three hundred sixty feet of siding above the ovens.

Furguson works, Dunbar Furnace Company, seventy ovens, three hundred sixty feet of siding above the ovens.

Mahoning works, Cambria Iron Co., one hundred ovens, two siding- above the ovens, one five hundred feet and one six hundred feet.

Trotter works, H. C. Fricke & Co., four hundred sixty-four ovens, thirteen hundred feet of siding above the ovens.

Valley works, H. C. Fricke & Co., one hundred fifty-two ovens, twenty-three hundred and forty feet of siding above the ovens.

Nellie mines No. 1, one hundred forty-two ovens, seven hundred fifty feet of siding above the ovens.

Nellie mines No. 2, one hundred twelve ovens, five hundred ninety feet of siding above the ovens.

Clarissa mines, one hundred eight ovens, two sidings above
359 the ovens, one five hundred sixty feet and one fifteen hundred thirty-five feet.

Wynn Coke Company, seventy ovens, two hundred fifty feet of siding above the ovens.

Redstone coke works, four hundred fifty ovens, forty-two hundred feet of siding above the ovens.

Leith coke works, two hundred eighty-four ovens, twenty-five hundred and twenty feet of siding above the ovens.

Boyle works, two hundred sixty-one ovens, six hundred ninety feet of siding above the ovens.

Charlotte coke works, H. C. Fricke Company, eighty-seven ovens, five hundred fifty feet of siding above the ovens.

Mayfield coke works, fifty-five ovens, three hundred fifty feet of siding above the ovens.

Donnelly coke works, two hundred ovens, seven hundred sixty feet of siding above the ovens.

Buckeye mines, two hundred sixty-one ovens, five hundred feet of siding above the ovens.

Alice mines, two hundred fifty-one ovens, one thousand feet of siding above the ovens.

Sterling mines, one hundred ovens, thirteen hundred and fifty feet of siding parallel.

Franklin mines, fifty ovens; have no room for siding above the ovens.

White mines, fifty-five ovens, no extra siding.

Foundry mines, ninety-seven ovens, no extra siding.

Painter works, two hundred twenty-eight ovens, a continuous siding extending up to the Diamond works above.

360 Hill farm works, one hundred fourteen ovens, no siding above the ovens; keep their own engine to do the shifting.

Kyle works, one hundred seventeen ovens, no siding above the ovens.

Fairchance Furnace Company, ninety ovens, no siding above the ovens.

Oliphant Furnace Company, one hundred thirty ovens, no siding above the ovens.

Steel works, coke works, two hundred eighty-seven ovens, two parallel sidings, and have their own engine to do the shifting.

Standard coke works, seven hundred ovens, extra siding above the ovens, and long parallel sidings in front of the ovens, and keep two engines to do the shifting.

Enterprise coke works, fifty-one ovens, no siding above the ovens.

Starr mines, forty-five ovens, no siding above the ovens.

Morewood mines, four hundred seventy-one ovens; have three extra sidings and have their own engine to move the cars and do the shifting.

Witness my hand and seal this 28th day of May, 1888.

W. H. COTTON. [SEAL.]

361 *Statement of Jas. S. Devlin.*

Cost of slope mine.

Engine and drums		$2,500 00
Foundations for engine and drums		750 00
Four tubular boilers, each 15 feet long		2,000 00
Engine and boiler houses		1,500 00
Drainage pump		1,000 00
Steam pipe		200 00
Exhaust steam pipe		340 00
Discharge pipe		1,240 00
Suction pipe		630 00
Drilling hole from surface to pump		350 00
Boiler		250 00
Coal and attendance to boiler		250 00
Cost of plant		$11,010 00
From which deduct—		
Engine and boiler at drift mines	$1,000 00	
Drum for self-acting plant in drift mine	500 00	
		1,500 00
Difference between cost of plants		$9,510 00
or $67.00 per acre for 142 acres of coal, and pumpman's yearly wages, during which period 9 acres of coal will be mined		638 00
or for 15 years' wages, a. $638.00 yearly		9,570 00

$6,700 per acre for 142 acres of coal.

Making the difference between the value of the coal worked to the rise and that worked to the dip $134.00 per acre.

Filed March 15, 1888, before—

C. HASBOURCK, *Master.*

362 *Exceptions of Defendants to Report of C. Hasbrouck, Esq., Master.*

In the Circuit Court of the United States for the Western District of Pennsylvania.

Wm. H. Brown's Sons and James Cochran *vs.* John H. Shoenberger and George K. Shoenberger.	No. 18. Nov. Term, 1887. In Equity.

And now, to wit, September 21st, 1888, the defendants except to report of C. Hasbrouck, Esq., master, as follows:

1st. The master erred in finding and reporting that the Dickerson's Run branch of the Pittsburgh, McKeesport and Youghiogheny railroad is the proper dividing line of the surface land, and in recommending a decree which should make such branch railroad the dividing line.

2nd. The master erred in not finding and reporting that the creek or run is the proper dividing line of said surface land, awarding therein the north end of the tract as east side of said run to plaintiff for building purposes.

3rd. The master erred in not awarding the piece of land known as the "panhandle" to the defendants.

4th. The master erred in find- and reporting that if the "panhandle" *w*hould be awarded to defendants the flow of water from the Parkhill tract of coal to the creek would be cut off, the evidence
363 showing that the Parkhill tract of coal to the creek would be cut off, the evidence showing that the Parkhill tract would have a front upon said creek for the whole length of said tract.

4th. Tha master erred in not finding and reporting that the plaintiffs have already coal works and coke ovens upon a tract of land adjoining the Parkhill tract, and that no coke ovens need be constructed upon the surface land adjoining the Parkhill tract in order to the successful working of the coal therein, and the master is respectfully requested to correct his findings in that respect.

5th. The master erred in not finding and reporting that defendants have no coal works or coke ovens with which to work the coal in the Hogsett and Wilson tract, and that therefore the convenience of defendants in the division of the surface land ought rather to be consulted than the convenience of the plaintiffs in such division.

6th. The master erred in finding and reporting that after the main entry was constructed the mining operations in both tracts of land would be alike, and should have found that in mining upon the Hogsett and Wilson tract the water would follow the miner constantly.

7th. The master erred in finding and reporting that the difference in value between said tracts of coal is only one hundred dollars per

acre. The master should have found that the coal in the Parkhill tract is worth three hundred dollars per acre more than that in the Hogsett and Wilson tract.

GEORGE SHIRAS, JR.,
C. C. DICKEY,
Counsel for Exceptants.

Filed before me Sept. 21. 1888.

C. HASBROUCK, *Master.*

Filed Oct. 11, 1888.

H. D. GAMBLE, *Clerk.*

364 *Opinion of the Court.*

(*Sur* exceptions to the master's report.)

BROWNS & COCHRAN *vs.* J. H. & G. K. SHOENBERGER. } No. 18. November Term, 1887. In Equity.

ACHESON, *J.:*

I am not convinced that the master was wrong either as to the line of division he adopted or in his valuations of the purparts. There is, indeed, in the case much testimony to support the views which the exceptants entertain, but the weight of the evidence as a whole seems to me to incline toward the conclusions the master reached. At any rate, it cannot be affirmed that his proceedings exhibit any plain error. He had the benefit of a personal view of the premises and the great advantage of seeing and hearing the witnesses. The presumption is in favor of the correctness of his judgment touching the matters in dispute; and, upon the whole, I think the court would not be justified in disturbing his conclusions.

In respect to waste water, if it is desired, the decree can expressly secure to the defendants the right of drainage through the culverts over the plaintiffs' purpart into the creek.

The exceptions to the master's report must be overruled, and it is so ordered.

Let a decree be drawn in conformity with the report of the master, whose fee is fixed at $500.

Filed Dec. 29, 1888.

H. D. GAMBLE, *Clerk.*

365 *Agreement of Counsel Waiving Filing of Supplemental Bill and Decree Thereon.*

In the Circuit Court of the United States for the Western District of Pennsylvania.

JAMES COCHRAN *et al.* *vs.* GEORGE K. SHOENBERGER and JOHN H. SHOENBERGER. } No. 18. Nov. Term, 1887. In Equity.

Whereas, pending the proceedings in the above-entitled cause, the

said George K. Shoenberger and John H. Shoenberger, by deed bearing date the 20th day of April, 1887, duly recorded in the office of the recorder of deeds in and for the county of Fayette, in Deed Book, vol. 78, page 12, did grant and convey unto William J. Rainey, a citizen of the State of Ohio, all of the right, title, interest, claim, and demand of them, the said George K. Shoenberger and John H. Shoenberger, of, in, to, and out of the lands and tenements described in the bill of complaint, together with all of the estate in law or equity howsoever of them, the said George K. Shoenberger and John H. Shoenberger, in the said described lands and tenements, the hereditaments and appurtenances, and said estate, right, title, and interest is now vested in the said William J. Rainey; but the said plaintiffs have hitherto had no notice of said conveyance except the recording thereof. It is now agreed by counsel that the said William J. Rainey shall be made a party defendant of record, and the filing of a supplemental bill is hereby waived, and it is
366 agreed that this stipulation shall have the full force and effect of such bill, and that a decree may be made hereon as above set forth.

H. & G. C. BURGWIN,
Attorneys for Plaintiffs.
GEORGE SHIRAS, JR., AND
C. C. DICKEY,
Counsel for Def't and W. J. Rainey.

Jan'y 29, 1889.

And now, to wit, January 29th, 1889, it appearing to the court that John H. Shoenberger and George K. Shoenberger have, *pendente lite*, conveyed their interest in the lands and tenements which are the subject of partition to William J. Rainey, a citizen of the State of Ohio, the filing of supplemental bill having been waived, it is considered, adjudged, and decreed (by agreement of counsel filed) that said William J. Rainey be made a party defendant to this cause.

BY THE COURT.

Filed Jan'y 29, 1889.

H. D. GAMBLE, *Clerk.*

Final Decree of Partition.

In the Circuit Court of the United States for the Western District of Pennsylvania.

SAMUEL S. BROWN *et al.*
vs.
GEORGE K. SHOENBERGER *et al.* } No. 18. November Term, 1887.

And now, to wit, January 29, 1889, this cause came on to
367 be heard upon motion of plaintiffs' counsel for a final decree upon the return of the master in partition made and agreement of counsel in the nature of a supplemental bill filed and order

of court thereon making William J. Rainey a party defendant; and thereupon the said return is confirmed absolutely, and it is ordered, adjudged, and decreed that the partition as made by the master remain firm and stable forever, and that the plaintiffs, Samuel S. Brown and Harry Brown, partners doing business under the firm name of W. H. Brown Sons, and James Cochran, hold and own purpart "A," containing 136 acres 97 perches of land, in which there is 86 and $_{10}^{3}$ acres of coal, known as the Parkhill coal, and 12 and $_{10}^{6}$ acres of surface land, to them, their heirs and assigns, in severalty, as to the said George K. Shoenberger and John H. Shoenberger and William J. Rainey, but as between themselves as tenants in common in the following purparts: To them, the said Samuel S. Brown and Harry Brown, partners doing business under the firm name of W. H. Brown Sons, to be held and owned by them as partnership assets of said firm of W. H. Brown Sons, the one equal undivided one-half part or share of said purpart "A," and to said James Cochran, his heirs and assigns, the one equal undivided one-half part or share of said purpart; to have and to hold the said purpart "A," with the appurtenances, by the same title and subject to the same conditions as the said coal and land in said purpart "A" was heretofore held in common by all the parties, plaintiffs and defendants, prior to this partition.

Subject, nevertheless, to the right in said William J. Rainey, his heirs and assigns, being the owners of the coal and surface included in purpart "B," to discharge the water which may hereafter
368 be pumped from the mines hereafter to be opened in the tract of land known as the Hogsett and Wilson coal, included in said purpart "B," into the two water-courses shown on the map in partition filed in this case, across the said surface land included in purpart "A" into Dickerson's run, and that the said William J. Rainey hold and own purpart "B," containing 145.31 acres of coal, known as the Hogsett and Wilson coal, and 24.31 acres of surface land, to him, his heirs and assigns forever, in severalty, together with the right in said William J. Rainey and to his heirs and assigns, being the owner of said purpart "B" coal and surface land, to discharge the water which may hereafter be pumped from the mines hereafter to be opened on the tract of land known as the Hogsett and Wilson coal, included in purpart "B," into the two water-courses shown on the map in partition filed in this case, across the said surface land into Dickerson's run.

Subject to the payment by said William J. Rainey, his heirs or assigns, to the said W. H. Brown Sons and to James Cochran the sum of eight thousand six hundred seventy-two ($8,672) dollars as owelty of partition.

And the said Samuel S. Brown, with Lizzie P., his wife, and Harry P. Brown, partners doing business under the firm name of W. H. Brown Sons, and James Cochran, and ——, his wife, are ordered and directed to execute and deliver within sixty days from the date hereof to the said William J. Rainey a deed of quitclaim and release for the coal and surface land comprised in purpart "B" aforesaid, and that the said William J. Rainey, with ——, his wife, is

ordered and directed to execute and deliver with- sixty days from the date hereof to the said Samuel S. Brown and Harry
369 Brown, partners doing business under the firm name of W. H. Brown Sons, and James Cochran a deed of quitclaim and release for the coal and surface land contained in purpart "A" aforesaid, and at the same time to pay to the said W. H. Brown Sons and James Cochran the sum of eight thousand six hundred seventy-two ($8,672) dollars.

And that the costs in this case, including a master's fee of five hundred ($500) dollars, be paid, one-half thereof by the plaintiffs and one-half thereof by the defendants.

BY THE COURT.

Filed Jan'y 29, 1889.

H. D. GAMBLE, *Clerk.*

Petition for Appeal.

In the Circuit Court of the United States for the Western District of Pennsylvania.

SAMUEL S. BROWN and HARRY BROWN, Partners under the Firm Name of W. H. Brown's Sons, and James Cochran
vs.
JOHN H. SHOENBERGER and GEORGE K. SHOENBERGER.
} No. 18. November Term, 1887.

To the Honorable William McKennan, president judge of said court:

370 The petition of William J. Rainey respectfully represents:

That on the 20th day of September, 1887, the said Samuel S. Brown, Harry Brown, and James Cochran exhibited in said court a bill in chancery against the said John H. Shoenberger and George K. Shoenberger praying for a decree of partition of certain lands and tenements held in common by the said Samuel S. Brown, Harry Brown, James Cochran, John H. Shoenberger, and George K. Shoenberger, which said lands and tenements are situate in the township of Dunbar, in the county of Fayette and State of Pennsylvania, and on the 19th day of November, 1887, a decree *quod partitio fiat* was made upon said bill by your honorable court, and Cicero Hasbrouck, Esq., was appointed master and commissioner to make partition of said lands and tenements, the one equal half thereof to the said plaintiffs and the other equal half thereof to the said defendants.

That the said master and commissioner proceeded to make partition of said lands and tenements, awarding one part thereof in severalty to the said plaintiffs and another part thereod in severalty to the said defendants, but charged with the sum of eight thousand six hundred and seventy-two dollars owelty in favor of the said plaintiffs; and to the report thereof made by said master and commissioner exceptions were duly filed by said defendants, which exceptions were by said master and commissioner overruled, and were

by him returned with his report of said partition *with* your honorable court and remain of record in said court.

That *pendente lite* the said John H. Shoenberger and George K. Shoenberger sold and conveyed to your petitioner all of the
371 interest of them, the said John H. Shoenberger and George K. Shoenberger, in the lands and tenements held in common as aforesaid, and on the 29th day of January, 1889, upon agreement of counsel filed, your honorable court permitted your petitioner to become a party defendant in said cause.

Your petitioner further shows that on the day and year last aforesaid your honorable court, after full hearing upon said master's report and the exceptions thereto, overruled said exceptions and confirmed said report absolutely and decreed the purparts reported by said master and commissioner to the said plaintiffs and your petitioner respectively in severalty, your petitioner's purpart being subject to the aforesaid owelty of partition.

Your petitioner further humbly submits that said final decree is erroneous, in that it overruled said exceptions, and that said decree should be reviewed and reversed by the Supreme Court of the United States.

Your petitioner therefore prays your honor that said decree may be reviewed by the Supreme Court, and that an appeal may be allowed your petitioner and such writ or writs as may be necessary and proper to remove the record of your honorable court to the Supreme Court for review, and that execution may be stayed in the meantime; and your petitioner will ever pray, &c.

WILLIAM J. RAINEY.

STATE OF OHIO, *Western District,* } ss:

Personally before me came William J. Rainey, the above-
372 named petitioner, who, being duly sworn, deposes and says that the statements contained in the foregoing petition are true, and that the appeal of said William J. Rainey from the decree set forth in said petition is not intended for delay.

WILLIAM J. RAINEY.

Sworn and subscribed this 20th day of February, A. D. 1889.

MARTIN W. SANDERS,
U. S. Com'r, N. D. O.

THE UNITED STATES OF AMERICA, *Northern District of Ohio.* }

I, Augustus J. Ricks, clerk of the circuit court of the United States for the northern district of Ohio, sixth circuit, do hereby certify that I am well acquainted with the handwriting of Martin W. Sanders, whose name is subscribed to the annexed petition, and that the signature to the same is in his proper handwriting.

And I do further certify that he was at the time of signing the same a commissioner of the circuit court of the United States of

America within and for the sixth circuit and northern district of Ohio.

In testimony whereof I hereto subscribe my name and affix the seal of the said circuit court, at Cleveland, Ohio, this 20th [L. S.] day of February, in the year of our Lord one thousand eight hundred and eighty-nine, — of the Independence of the United States the 113th.

A. J. RICKS, *Clerk*,
By M. W. SANDERS,
Deputy Clerk.

373 THE UNITED STATES OF AMERICA, } ss:
Northern District of Ohio, }

I, Martin Welker, district judge of the United States for the northern district of Ohio and one of the judges of the circuit — of the United States for said district, do hereby certify that Augustus J. Ricks, whose name is subscribed to the foregoing attestation, was at the time of signing the same clerk of said circuit — of the United States, and that the said attestation is in due form of law.

Witness my hand, at Cleveland, this 20th day of Fearuary, A. D. 1889.

M. WELKER,
District Judge.

And now, to wit, February 26th, 1889, the within petition presented, and, upon motion of counsel for petitioner, an appeal to the supreme court is allowed as prayed for, and it is ordered that the said petitioner file his bond for appeal in the sum of twenty thousand ($20,000) dollars.

BY THE COURT.

Filed Feb'y 26, 1889.

H. D. GAMBLE, *Clerk.*

374 *Bond for Appeal.*

Know all men by these presents that we, William J. Rainey, of the city of Cleveland, State of Ohio, and Alexander J. Hill, of the county of Fayette and State of Pennsylvania, are held and firmly bound unto Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, and James Cochran in the sum of twenty thousand dollars, to be paid to the said Samuel S. Brown and Harry Brow*b*, partners as aforesaid, and James Cochran, their certain attorney, their executors, administrators, and assigns; to which payment we and every of us do bind ourselves, our heirs, executors, and administrators, firmly by these presents.

Sealed with our seals. Dated the 12th day of March, A. D. one thousand eight hundred and eighty-nine.

Whereas the said William J. Raney is about to appeal from the final decree of the circuit court of the United States for the western district of Pennsylvania in a certain proceeding in partition, wherein the said Samuel S. Brown and Harry Brown, partners as aforesaid,

and James Cochran are plaintiffs and the said William J. Rainey and others are defendants, at No. 18, November term, 1887, of said court, in order that said decree may be reviewed by the Supreme Court of the United States:

Now, the condition of this obligation is such that if the said William J. Rainey shall prosecute his appeal with effect and shall answer all debt-, damages, and costs that may be adjudged against him in the premises, then this obligation shall be void; otherwise to
375 be and remain in full force and virtue.

WILLIAM J. RAINEY. [SEAL.]
ALEXANDER J. HILL. [SEAL.]

Sealed and delivered in the presence of us—
J. E. H. MELCHER.
T. J. MITCHEL.

STATE OF PENNSYLVANIA, } *ss:*
County of Fayette, }

Personally before me came Alexander J. Hill, who, being duly sworn, deposes and says that he is worth the sum of twenty thousand dollars over and above his debts and liabilities and exemptions.

ALEXANDER J. HILL.

Sworn — and subscribed this 14th day of March, A. D. 1889.
ANDREW FAIRCHILD, *J. P.*

And now, to wit, March 21st, 1889, the within bond approved *nisi*, approval to become absolute unless exceptions are filed within one week.

BY THE COURT.

Filed March 21, 1889.

H. D. GAMBLE, *Clerk.*

APRIL 3, 1889.

No exceptions having been filed to the within bond, the same stands approved absolutely in pursuance of the order endorsed hereon confirming the same *nisi*.

H. D. GAMBLE, *Clerk.*

376 UNITED STATES OF AMERICA, } *sct:*
Western District of Pennsylvania, }

To Samuel S. Brown and Harry Brown and James Cochran, Greeting:

You are hereby cited and admonished to be and appear at a Supreme Court of the United States, to be holden at Washington, D. C., on the second Monday of October next, pursuant to an appeal filed in the clerk's office of the United States circuit court, wherein W. J. Rainey is appellant and you are appellees, to show cause, if any there be, why the decree rendered against the said appellant, as in

the said appeal mentioned, should not be corrected and why speedy justice should not be done to the parties in that behalf.

Witness my hand this third day of April, A. D. 1889.

[Seal of the U. S. Circuit Court, W. D. Penna.]

M. W. ACHESON,
Judge of U. S. — Court.

Attest: H. D. GAMBLE,
Clerk U. S. Circuit Court, West. Dist. Penna.

377 [Endorsed:] No. —. —— term, 18—. —— *vs.* ——. Citation. April 10th, 1889. Served on us. H. & G. C. Burgwin, attorneys for appellees.

378 In the Supreme Court of the United States.

WM. J. RAINEY, Appellant,
vs.
SAMUEL S. BROWN, HARRY BROWN, and JAMES COCHRAN, Appellees.

And now, to wit, October 10th, 1889, the appellant, Wm. J. Rainey, files the following assignments of error:

1. The court below erred in making the final decree of January 29th, 1889.

2. The court below erred in charging the share or purpart of the appellant with owelty in favor of the appellees.

3. The court below erred in not awarding to the said Wm.
379 J. Rainey the piece or parcel of land designated by the master as the panhandle.

4. The court below erred in not finding and decreeing that the coal in the Parkhill tract is worth three hundred dollars per acre more than the coal in the Hogsett and Wilson tract.

5. The court below erred in not awarding to the said Wm. J. Rainey the coal in the Hogsett and Wilson tract, with the surface land described in the deed conveying said coal to the tenants in common and including the said land designated as the "panhandle," and including also one-half of the remaining surface land held by said tenants in common and fully described in the original bill.

GEORGE SHIRAS, JR.,
Counsel for Appellant.

And the said William J. Rainey humbly prays the said honorable Supreme Court of the United States that said final decree may be reversed and set aside.

GEORGE SHIRAS, JR.,
Counsel for Appellant.

380 [Endorsed:] William J. Rainey, appellant, *vs.* Samuel S. Brown *et al.*, appellees. Assignments of error & prayer for reversal. Shiras.

(Here follow maps marked pp. 381, 382, 383, & 384.)

385 In the Circuit Court of the United States for the Western District of Pennsylvania.

SAMUEL S. BROWN *et al.*
vs.
W. J. RAINEY *et al.*
} No. 18. Nov. Term, 1887.

WESTERN DISTRICT OF PENNSYLVANIA, *ss:*

I, H. D. Gamble, clerk of the circuit court of the United States for the said district, do hereby certify that the annexed and foregoing pages contain a true copy of the record and proceedings in the above-entitled case so full and entire as the same remains of record and on file in my office.

Seal of the U. S. Circuit Court, W. D. Penna.

In testimony whereof I have hereunto signed my name and affixed the seal of the said court, at Pittsburgh, this 27 day of April, A. D. 1889.

H. D. GAMBLE, *Clerk.*

WESTERN DISTRICT OF PENNSYLVANIA, *ss:*

I, M. W. Acheson, judge holding the United States circuit court for said district, do hereby certify that H. D. Gamble, above named, was at the time of making the above certificate and is now clerk of the said court, and that the said certificate made by him is in due form of law.

M. W. ACHESON,
U. S. Judge.

Pittsburgh, April 27, 1889.

Endorsed on cover: Case No. 13,739. W. Pennsylvania C. C. U. S. No. 155. W. J. Rainey, appellant, *vs.* Samuel S. Brown and Harry Brown, partners under the firm name of W. H. Brown Sons, and James Cochran. Filed October 12, 1889.

Office Supreme Court, U. S.
FILED.
MAR 18 1893
JAMES H. McKENNEY,
CLERK.

RECORD CASE No. 13,793.

IN THE

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1892.

Term No. 155.

Appeal from the Circuit Court of the United States for the Western District of Pennsylvania.

W. J. RAINEY, Appellant,

VERSUS

SAMUEL S. BROWN and HARRY BROWN, Partners under the firm name of W. H. BROWN SONS and JAMES COCHRAN.

BRIEF OF ARGUMENT FOR APPELLEES.

GEORGE C. BURGWIN,
Attorney for Appellees.

W. F. WATSON, PRINTER, 332 LIBERTY AVENUE.

IN THE

Supreme Court of the United States.

RECORD CASE No. 13,793.

No. 155 of October Term, 1892.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF PENNSYLVANIA.

W. J. RAINEY, *Appellant*,

VERSUS

SAMUEL S. BROWN and HARRY BROWN, Partners under the firm name of W. H. BROWN SONS, AND JAMES COCHRAN.

BRIEF OF ARGUMENT OF COUNSEL FOR APPELLEES.

POINTS OF LAW.

The References are to the Printed Record.

No questions of law are raised by the assignments of error.

This is an appeal from the findings of fact by a Master in partition. Based upon these findings of fact a division was made by the master of the coal and surface land owned by tenants in common. Purparts were allotted; owelty of partition was charged upon one purpart in favor of the other; the exceptions filed thereto by appellant were overruled by the Court below after consideration of the testimony, the Master's findings of fact were approved, his return of partition was confirmed absolutely, and a decree entered in conformity therewith.

The interlocutory decree for partition, and the appointment of the Master was as follows: (See page 9.)

> "This cause came on to be heard upon bill and order that the same be taken *pro confesso* against the defendants in default of an appearance and answer upon motion for a decree for partition, and upon consideration of the matter contained in said bill and by and with the consent of the defendants' counsel the Court do now order and adjudge as follows: * * * That a fair and just division and partition of the real estate and premises be made according to law between the several and respective parties entitled thereto as above set forth according to their several and respective interests and estates therein.* * * That a commission issue to Cicero Hasbrouck as Master, to make division and partition of the real estate as above decreed with such owelties as he may deem necessary to equalize said partition * * * subject to the approval of the Court on report thereof made."

See Appendix This decree is in conformity with the Act of Assembly of Pennsylvania of the 8th of May, 1876, Purdon's Digest, page 694.

Independent of any Act, however, and of the powers which may have been vested in the Master thereby, he was by the decree of the court, and *by the consent of the parties*, constituted an independent tribunal, selected by the parties, to determine the questions of fact properly brought before him, subject to the approval of the Court.

These facts having been found by the Master and approved by the Court below (p. 209), this Court will not reverse unless it be convinced that "there has been manifest error in the consideration given to the evidence."

Kimberly *vs.* Arms, 129 U. S., 524.

In this case Mr. Justice Field, delivering the opinion of the Court says: "A reference by consent of the parties of the entire case for determination of all its issues * * * is a submission of the controversy to a tribunal of the parties own selection and governed in its conduct by the ordinary rules applicable to the

administration of justice in tribunals established by law. Its findings, like those of an independent tribunal, are to be taken as presumptively correct ; subject indeed to be reviewed under the reservations contained in the consent and order of the Court, where there has been manifest error in the consideration given to the evidence, or in the application of the law, but not otherwise." * * *

Camden *vs.* Stewart, 144 U. S., 114.
Crawford *vs.* Neale, 144 U. S., 596.
Furber *vs.* Ferris, 145 U. S., 134.

Where the question is wholly one of weight of evidence the judgment will be affirmed.

Parker *vs.* Phetteplace, 1 Wall., 684.
Alviso *vs.* U. S., 8 Wall., 337.
Lytle *vs.* State of Arkansas, 22 How., 193.
Harrall *vs.* Beall, 17 Wall., 690.

This Court will not reverse a decree merely upon a doubt created by conflicting testimony.

P. W. & B. R. R. Co. *vs.* Steam Towboat Co., 23 How., 209.
Moorewood *vs.* Enequist, 23 How., 491.
Simpson *vs.* Baker, 2 Black., 581
Rogers *vs.* The S. B. Wheeler, 20 Wall., 385.

"The Report of Auditors is in the nature of the report of a Master in a suit in Chancery." * * * *

"If this Court were now satisfied that the auditors had committed a gross and palpable error in any matter of fact to the injury of the plaintiffs I should feel it a duty to recommit the report in order that such an error might be corrected. But if it be a matter of fair doubt, or a conclusion upon evidence in its own nature, ambiguous and uncertain, upon which different persons equally impartial and intelligent might entertain different opinions; then the Court will not substitute itself for the judgment of the auditors any more than it would for the judgment of a jury, even though it might not perhaps have originally arrived at exactly the same conclusion.

"It is sufficient for the Court to abstain from any interference, as to a matter of fact, that it is not clearly satisfied, that there has been an unquestionable error."

Per Story J. (May Term, 1836. 1st Circ.).
Donnell *vs.* Columbian, Ins. Co., 2 Sumner, 366.

"The findings of a Master on questions of fact, approved by the Court below, will not be set aside by the Supreme Court except for clear error."

Kisors Appeal, 62 Pa. St., Rep., 435.
Stocker *vs.* Hutter, 134 Pa. St., Rep., 19.
Burton's Appeal, 93 Ibid, 220.

"Where the testimony is conflicting, although the merits may appear contrary to the finding, if it has been approved by the Court below, as a general rule this Court will not reverse."

Reesers Appeal, 100 Pa., 79.

And in the late case of McConnomy *vs.* Reed, 31st W. N. C., January 13, 1893, page 339, McCollom, J., says:

"It may be settled as a general principle that where the evidence is conflicting, and the credibility of witnesses involved, a Master's finding upon questions of fact is entitled to the same consideration as a verdict of a jury and will not be set aside unless it is clearly and palpably against the weight of the testimony."

But under the terms of the interlocutory decree (Record, p. 9) the partition was made by a Master who also had the powers of a Commissioner under the chancery practice. His findings of fact, therefore, are conclusive.

"The proceedings of the commissioners (in partition) are conclusive unless based on erroneous principles, or unless shown by a clear and decided preponderance of evidence to have been grossly unequal or unjust."

Am. and Eng. Ency. of Law, Vol. 17, page 778.

"The Commissioners have * * * to make a fair partition, division and allotment. In doing this (they) must exercise 'the best of their skill, knowledge and judgment,' and pro-

vided they do that and act fairly, the Court will not, it seems, disturb their return upon the mere allegation of conflicting opinions by different surveyors with respect to the comparative value of the several lots.

Dan. Chan. (6 Ed.), Sec. 1156.

"The report of the Commissioners will not be set aside except for reasons which would induce the Court to set aside the verdict of a jury."

"It is improper (in English practice) to interfere with the valuations (of the Commissioners), except in case of gross mistake."

Freeman on Partition, Sec. 525.

SUMMARY OF THE TESTIMONY.

The premises to be divided comprised two tracts of coal, containing two hundred and thirty-one acres, and a tract of surface land, containing about thirty-six acres.

On the west side of the surface lay the Parkhill tract of coal, cotaining eighty-five acres, which was alloted to appellees.

On the east side lay the Hogsett and Wilson tract, containing one hundred and forty-five acres, alloted to the appellant.

They are situate in what is known as the Connellsville Coke Basin, and their chief value consists in their adaptability to the manufacture of coke.

The division and allotment of the coal, as made by the Master, was agreed to by the parties. (See pages 28 and 32).

Two questions of fact remained to be decided, viz.:

First. The proper division of the surface land.

Second. The respective values of the tracts of coal, with the proper allotment of surface land.

In order to find these facts correctly, it was necessary for the Master to inquire into the price per acre, which the two tracts of coal, with the surface land when divided, would respectively bring in the market; and as bearing upon this fact to inquire into the probable methods of mining to be adopted by the respective owners of the two tracts of coal, the quality

of the coal, the machinery necessary in mining the coal, the manner of operating the mines, the character of the operations therein, the manner of bringing the coal to the pit mouth; after bringing it to the pit mouth, the manner in which it was to be deposited in the ovens where it is burned and transformed into coke; the number of coke ovens necessary for the economic operation of the respective tracts of coal, the proper method of constructing these ovens, and finally the best mode of getting the coke from the ovens into the railroad cars, and of constructing the necessary railroad switches for the use of these cars.

These were all practical questions bearing upon the proper division of the surface and the relative cost of mining the coal and manufacturing it into coke from the two tracts.

The Master or Commissioner went upon the ground with the parties, their engineers and counsel; he made a careful examination of the premises.

To assist the Master in reaching his conclusions, and to make his findings of facts, the appellees called as witnesses men of long, practical experience in the mining of coal and the manufacture of coke in the Connellsville region, who had made examination of the premises with a view to testifying upon the questions of value and of proper division, and who were familiar with the selling prices of similar coal fields in that neighborhood.

The appellant also produced a number of witnesses.

The testimony was voluminous and conflicting.

The Master had already had experience in the partition of coking coal lands, similarly situated in the immediate neighborhood, and was exceptionally well-fitted to judge the comparative value of the testimony of the respective witnesses. As his report shows, the testimony was very carefully considered and weighed, and fairly decided.

The weight of evidence is clearly with the Master's findings.

FIRST. THE DIVISION OF THE SURFACE.

To make this division, the proper number of ovens for each tract must be decided, then the ovens and the railroad switches or car siding must be located.

The appellees contended before the Master that the proper division of the surface was the line of the railroad. The reasons given for this were :

First. Because this division gives to each tract of coal, as far as the land will permit, the space necessary for railroad switches and car siding in front of and above the coke ovens.

Second. It is most convenient for each operator to have his coal and surface adjoining, and not separated by the railroad in the manner suggested by the appellant.

Third. Because this is the only division which gives to the Parkhill tract the land necessary for a waste car siding above the ovens; this siding is desirable above the ovens and essential to the economic operations of a coke plant; and this division also gives to the Hogsett and Wilson tract that part of the surface most desirable for the operation of its plant.

In dividing the surface the Master had to examine into the usual and best, *i. e.*, the most economical method of constructing and operating plants for the manufacture of coke from coal. This includes:

First. The number of coke ovens necessary for each tract of coal.

The witnesses for the appellees and all the witnesses for the appellant, except A. W. Bliss, agree that the proper number of ovens is about one per acre. This would be eighty-six for Parkhill and one hundred and forty-five for Hogsett & Wilson. It does not require technical testimony to prove that these ovens should be built on solid ground.

Besides the testimony of (E. J. Taylor, page 140, and John McFadden, page 164, Newmyer, page 179), every day experience proves how difficult and expensive, if not impracticable, it is to erect and maintain stone structures upon "made" ground.

The witnesses all agree that the ovens are from 13½ to 14 feet from centre to centre. For the Parkhill eighty-four ovens

there would be required 1176 or 1204 feet; for the benefit of Hogsett and Wilson's one hundred and forty-five ovens there would be required 2030 feet. The ovens must, therefore, be constructed upon the location made by Taylor (see Plan No. 4), otherwise a large proportion of Brown & Cochran's ovens would be on made ground.

Second. The proper amount and location of track sidings, including waste car siding.

All appellee's witnesses unite in saying that one day's run of extra cars is necessary for the proper operation of coke works, and two days' run desirable.

10 cars=1 days run×by 35=350.
20 cars=2 days run×by 35=700.

All appellees witnesses agree in testifying that the waste car siding should be above the ovens, so that the cars may be dropped down by gravity in front of the ovens to be loaded as needed, and even appellant's witnesses testify as follows:

"A convenience, but not a necessity, to have empty car siding above ovens so they can be dropped down." Bliss (p. 106).

"I would put waste car siding above my ovens to drop down my empties, that is the usual way to construct waste car siding." Bradford (p. 119).

"The proper way, if you have extras, is to have a switch above, but there would not be very much room." Shipley (p. 132).

The testimony of all the witnesses called by the appellees makes this the proper division of the surface land, having in mind what is necessary and desirable for the operation of the Hogsett and Wilson coal, as well as for the Parkhill coal.

The witnesses for the appellant would take the "Pan-handle" from the Parkhill tract, and allott it to the Hogsett and Wilson for three reasons.

First. Because it lies in front of the Hogsett and Wilson tract.

Second. So that the water from the Hogsett and Wilson tract may be discharged into the Run at this point.

Third. So that a supply of water may be obtained from the run for the operation of the machinery on the Hogsett and Wilson tract.

Fourth. So that the ashes from the ovens of the Hogsett and Wilson tract may be deposited in the run.

Now, the appellees witnesses explain clearly and satisfactorily, that these reasons given by the Rainey witnesses for attaching the Pan-handle to the Hogsett and Wilson tract are without merit, and that appellants proposed division would not add to the convenience of operating the Hogsett and Wilson tract.

First. It will appear from an examination of the map that a considerable portion of the Pan Handle surface lies in front of the Parkhill and, all of it practically is part of it.

Bliss himself says (p. 160), "Of course the Hogsett and Wilson tract could be operated without that piece of ground, with permission for water supply."

Second The discharge of water will go naturally through the culverts under the railroad, as provided in the decree.

Third. Water supply. E. J. Taylor (p. 142), Taggart (p. 189), McFadden (p. 164), testify the water is of such a character that it cannot be properly used in the manufacture of coke.

And besides, appellant forgets the great amount of water which his witnesses testify will come out of the Hogsett and Wilson mine; he can use that. It will be of the same character as the water in the run.

Fourth. Deposit of ashes.

The witnesses all agree that the proper number of ovens for the Hogsett and Wilson tract is one-hundred and forty, or one-hundred and forty-five; (Devlin says one-hundred and fifty), and the proper location of these ovens on the map (Record Map No. 4) is undisputed.

The proper way to remove ashes from the oven yard is by a cart, as testified by Newmeyer (p. 181), and Taggart (p. 190).

It will be found by measurement on the map that the centre of the one-hundred and forty ovens is nearly equi-distant from the piece of surface at the south end proposed to be allotted to the Hogsett and Wilson tract by appellants witnesses, and the surface at the north end proposed to be allotted to it by the appellees witnesses. There would, therefore, be the same average haul for the ashes whichever piece be allotted. Moreover, to the north end of the tract the haul would be down grade. It is therefore common sense, as well as the testimony of the appellees witnesses, that by their division the Hogsett and Wilson tract would be accommodated as well as the nature of the whole ground will admit for the deposit of the ashes.

It therefore seems clear that the division adopted by the Court below fulfills all the requirements claimed by appellant.

Whereas, the division contended for by appellant and his witnesses disregards entirely the convenient and economic operation of the Parkhill coal, and seeks to give to the Hogsett and Wilson an advantage which the testimony shows to be wholly imaginary, to the certain disadvantage of appellees.

If appellants division be adopted it would necessitate either the building of one-third of appellees ovens on made ground, or the building of a less number than is desirable for the economical manufacture of the Parkhill coal into coke. This would result in a greater cost of manufacture, and would lessen the value of that tract.

Also, the Parkhill tract would have no extra car siding above the ovens.

It is true that Julius C. Shipley, one of appellants witnesses says, on page 76, that he would locate the engine for the Hogsett and Wilson main entry on the west side of the railroad, so that the entry can be operated on a straight line. But he also says that it could be operated on a straight line by placing the engine on the east side of the railroad. He also says (p. 84), "That with a grade of three feet or more the friction, even if a shieve be used, will be overcome." All the testimony in the case shows that grade to be from three and one-half to four feet to the hundred, as found by the Master (p. 16). An examination of Plan No. 4 shows that if the line of the Hogsett and Wilson

main entry be produced across the railroad it will strike the surface exactly in the angle formed by the railroad, where there would not be sufficient room for an engine.

And he admits (p. 91), that he would prefer to have all the surface on the same side of the Railroad.

It is manifest that Mr. Shipley has not examined and studied the subject with the same thoroughness that E. J. Taylor and James S. Devlin have done, and a fair sample of the extreme partisan character of the testimony of Bliss, a witness for the appellant is on (p. 108), "Of course it would be more desirable to have the same amount of surface land on the same side of the Railroad, *but under no circumstances* could this Pan-handle be attached to the Parkhill tract."

A consideration of the testimony will make it clear that appellants proposed division, while it would not add to the value of the Hogsett and Wilson tract, would diminish greatly that of the Parkhill and would necessitate a readjustment of the owelty of partition.

The reason for appellant's vigorous contention for this division appears from the fact that Rainey is the owner of coal and surface adjoining the Pan-handle, and marked on Plan No. 2 "Rainey's Ovens," "Joseph Hare," and as Bliss says, (p. 108), "an independent operator on the Pan-handle would interfere directly with it." This coal and surface never was owned by G. and J. H. Shoenberger, the defendants to the Bill for Partition.

Only the lands owned by the tenants in common at the time the bill for partition was filed are to affect the rights of the parties.

As Rainey bought the one-half interest of the lands in partition from Shoenberger, after the proceedings had commenced, but of which fact there was no testimony before the Master, it cannot now be contended that the ownership of the Joseph Hare tract gives appellant any equities in the matter of the division now being made.

This is an attempt on appellant's part to make the Pan-handle appurtenant to the Joseph Hare tract of coal.

SECOND. THE VALUATION OF THE TRACTS OF COAL WITH THE SURFACE LAND AS DIVIDED.

	Hogsett & Wilson.	Parkhill.	Difference.
APPELLEES' WITNESSES.			
Josiah Strickler.....p. 35	$400	$500	$100
John S. Newmeyer..p. 37	400	450	50
Joseph H. Paddock..p. 38	400	$450–460	$50–60
John McFadden.....p. 41	350	400	50
Geo. C. Marshall.....p. 44	350	400	50
Wilson C. Rosser....p. 46	300	375	75
J. D. Core.....p. 136	400	500	100

E. J. Taylor testifies (142), difference in size of tracts makes a difference of 2.4 cents per ton in favor of Hogsett & Wilson.

John K. Taggart.....p. 187			$ 50
James Cochran.....p. 194	(" Big difference.")		100
APPELLANT'S WITNESSES.			
James S. Devlin.....p. 58			134
Alex. J. Hill.....p. 65	$300 or $350	$500–$550	200
Thomas Johns.....p. 69	300 or 400	450– 500	$150–200
Julius C. Shipley.....p. 82	$400	$600	200
Frank R. Bradford..p. 94			200
Arthur W. Bliss.....p. 101	400	600	200

" Difference of 25 per cent. to 33 per cent. in favor of pump coal."....

Charles Donnelly (p. 196), " never saw the land "... $250,300

Bases his opinion on that of James Devlin given before the case came up. As Devlin changed his opinion after he had seen the land Donnelly would have done so too, and would have made the difference only $134. H. C. Frick (p. 198), difference of 5 cents per ton in favor of drift coal, 6000 or 7000 tons to the acre. " Don't know much about this property." " Never examined it."

The appellee's witnesses after an examination of the land and a comparison thereof with other lands similarly situated, the selling price of which they knew, have given their opinion of the difference in value of the two tracts in partition.

They have considered :

First. The cost of the machinery necessary.

Second. The cost of operating the mines.

Third. The fact that in pump coal there is a difference of ½ cent per ton, or $30 to $40 per acre in its favor over the drift coal.

Fourth. The fact that there is a difference in the cost per acre of operating a large tract of coal over a small one. In this case a difference of 2.4 cents per ton or from $140 to $190 per acre in favor of Hogsett & Wilson, as testified by E. J. Taylor (p. 142).

The third and fourth elements of value were not considered by any of appellant's witnesses. James S. Devlin expressly says that he did not consider them.

That these third and fourth elements of value are facts are testified to by

Josiah A. Strickler, p. 34.
John H. Newmeyer, p. 37 and p. 181.
Joseph Paddock, p. 39.
John McFadden, p. 42.
George C. Marshall, p. 44.
John K. Taggart, p. 190.

If we take, therefore, the testimony of James S. Devlin, the most intelligent of appellant's witnesses, that the difference in value of the two tracts is $134 per acre, based upon the greater cost of machinery and operating expenses for the Hogsett & Wilson tract, and deduct therefrom the advantage in weight of coke per acre of 7000 tons, which it has over the Parkhill tract, one-half cent per ton=$35, we have a real difference of only $99 per acre. If we also take into consideration the fourth element of value, as explained by the witnesses, and the further fact that the expenditure of $134 per acre for the Hogsett & Wilson machinery is not a present actual outlay, but must be discounted by the fifteen years during which the outlay would be made from time to time, as discussed by the master in his report (see p. 22), we are brought to the conclusion that the true difference in the relative value per acre of the two tracts of coal is nearer $50 than $100.

The attention of the Court is particularly called to the quali-

fication of witnesses and to the probabilities of their knowledge of the proper manner of operating coke plants and the relative values of pump and drain coal.

The appellees called :

1. E. J. Taylor, civil engineer, of thirteen years experience who has given special attention to mining, engineering and the construction of Coke plants, who was well known to the master to possess ability, integrity and a thorough knowledge of the subject.

2. Joseph A. Strickler, an operator, has been in the coke business in the Connellsville region for fifteen years.

3. John H. Newmeyer, an operator, has been in the coke business for ten years.

4. Joseph H. Paddock is the civil and mining engineer of the H. C. Frick Coke Company; has all kinds of mines under his charge, slope, shaft, and drift; and is the man on whose opinion H. C. Frick would rely if about to purchase.

5. John McFadden, has been in charge of coke works for fifteen years or more. First with the Connellsville Gas Coal Company, then with the Cambria Iron Company, and now with the Hostetter Coke Company.

6. George C. Marshall has been in the coke business since 1873. Partner of Arthur W. Bliss.

7. Milson Rosser is superintendent of the J. M. Schoonaker Coke Works, has been in the coke business eight years; in the coal business all his life.

8. John K. Taggart has been in the coke business ten years; is superintendent of Connellsville Coke and Iron Company.

9. James Cochran began to manufacture coke in 1843; has been regularly in the business since 1864.

10. J. D. Core, who has resided within a mile of the property for twenty-five years, and knows all the sales of coal land that have been made in the neighborhood.

All these witnesses live in the coke region near the property to be divided, they have all examined the property with a view to testifying in the case, and they are all familiar with the sales of coal lands which have been made in the region.

They have not only examined the Parkhill coal carefully,

but the Hogsett & Wilson as well, unlike the defendants witnesses who seem to have been on the search for reasons to depreciate the Hogsett & Wilson and to inflate the value of the Parkhill.

In addition to these witnesses we have on the question of proper division of the surface :

11. John Jones (p. 154), who has been in the coal and coke business in the coke regions seventeen or eighteen years.

12. Robert L. Martin, who has been superintendent of the Fairchance Coke Works for fifteen years.

13. Wesley H. Cotton, who was five years superintenden at the Jackson Mines.

These witnesses are corroborated as to the necessity for an empty car siding above the works by

14. Thomas Adams, Supervisor of the Baltimore & Ohio Railroad, in the coke region.

15. Joseph L. Robbins, yard boss for B. F. Keister & Co., near Connellsville for ten years.

The strong case made by these witnesses, who corroborate each other in a manner which carries conviction with it, it is attempted to break down by the testimony of

1. James S. Devlin.

But if we supplement the testimony of Devlin with that of E. J. Taylor and Joseph H. Paddock and other witnesses, as to the extra weight of pump coal, and the difference in value resulting from difference in size of the tracts, which Devlin admits he did not consider, it will be found that Devlin practically agrees with plaintiff's witnesses.

2. Alexander J. Hill, an employee of Rainey, who confesses he is not a practical engineer, doesn't know the cost of the machinery of the works of which he says he has been in charge for one year, nor the expense of operating, nor the amount of surface necessary in operating.

3. Thomas Johns, a brother-in-law of Rainey, who has been in the coke business only four years, but who confessed he

cannot speak from experience, and who cannot give cost of machinery or of operation.

4. Abraham Lash, another employee of Rainey, who lives in Ohio, who has had no experience in the manufacture of coke, and doesn't know the requirements of the business.

5. Frank R. Bradford, lately in Rainey's employ, who gives his testimony without having seen the land, and then after a week comes back and tries to bolster up his former opinion by reason which give indications of having been made to order.

6. Julius C. Shipley, whose testimony shows throughout a lack of knowledge of the requirements of the premises to be divided. It is plain that he has not, as an expert, studied the facts before giving his opinion with the same degree of care as exhibited by Devlin and Taylor.

7. Arthur W. Bliss, whose testimony as to the cost of operating the Hogsett & Wilson tract is based (so he says) upon the cost of operating his own works. As the Hogsett & Wilson coal is at an average depth of less than 80 feet, and his own coal at a depth of 700 feet (p. 102), the great cost which he anticipates for the operation of the Hogsett & Wilson is easily understood. Besides he is contradicted in every material part of his testimony by his partner, George C. Marshall, who has been in the business longer than Bliss, and who has certainly had an equal opportunity of forming a correct opinion of the values of coal and how to run coke works.

8. Charles Donnelly, who never saw the land, and whose testimony is confessedly based on what James Devlin said about it, and it is apparent that this conversation, as to values, took place before Mr. Devlin himself had examined it.

9. H. C. Frick, who thinks he has seen the land, but never examined it, and who is contradicted by his own mining engineer and superintendent, who probably has a better practical knowledge of the subject than Frick.

The appellees, therefore, contend:

"That the testimony is overwhelming in favor of the division of the surface, as made by the Master, and that the differ-

ence in value of the two tracts, found by the Master to be $100 per acre in favor of the Hogsett & Wilson is more liberal than appellant has any right to expect.

That this appeal is frivolous and is intended only for delay.

The appellees, therefore, claim and ask the Court to award them damages in addition to interest.

GEORGE C. BURGWIN,
Attorney for Appellees.

APPENDIX.

The Pennsylvania Statute regulating the partitions of real estate in equity is as follows:

"Whenever a bill has been or shall hereafter be filed in any Court having the jurisdiction of Courts of Equity in cases of partition, it shall be lawful for the said Court, after a decree for partition shall have been made, to refer the cause to a Master, or Master and Commissioner, to divide and partition the lands and tenements into purparts, and to value the same and to ascertain the amount which shall be paid or charged thereon for owelty, or which shall be paid or secured to the parties to whom no purpart can be allotted, in the manner now authorized by law, under writs of partition issued out of courts of common law; *and the said master, after such partition and valuation has been made, shall award and allot the said purparts* to and among the parties entitled, together with the sums to be charged thereon, and payable as and for owelty of partition." * * *

Act of May 8th, 1876. Purdon's Digest, p. 694.

The procedure in the High Court of Chancery as laid down by Daniel, is as follows:

It is the duty of the Master or Commissioner in partition:

First. "To divide the estates in question in the cause and no others; any evidence, therefore, touching estates not in question in the cause, will be irrelevant to the business before the Commissioners."

Dan. Chan. Prac., p. 778. (5th Ed., p. 1155.)

Second. "To assign the shares to those parties to whom they would be most valuable (independently of their value in the market), with reference to their respective situations in relation to the value of the property before the partition took place."

Dan. Chan. Prac., p. 780. (5th Ed., p. 1155.)

See also Canning *vs.* Canning, 2 Drew, 436.

Both by the Pennsylvania Statute and the English Chancery practice, the Master and Commissioner has two distinct, independent acts to perform, in the following order:

First. The division and valuation.

This is made of the land in question without reference to the adjoining ownerships or to the improvements made on any portion thereof by either of the parties; otherwise the effect would be virtually to divide between the parties property owned by only one of them.

Second. The allotment.

It is not until after the division and valuation have been made, that he enquires if there be any equities which entitled one party to have allotted to him one purpart more than another.

If one party have made improvements he is entitled to have that purpart on which are the improvements, without taking into consideration the value of these improvements.

Hall *vs.* Pidcock, 21 N. J. Eq., 314.

Kelsey's Appeal, 113 Penna. St. Rep., 122.

Or if one party own lands adjoining one purpart, which makes that purpart of special value to him, he is entitled to have that purpart allotted to him.

Story *vs.* Johnson, 1 Young and Coll., 538.

Story's Eq. Jur., Sect. 656, b.

If appellant correctly contend that ownership of adjoining land and improvements is to affect the division, it must also affect the valuation.

If the appellees are to be compelled to mine the Parkhill coal through the Nellie shaft on their adjoining land and by means of their machinery and other improvements thereon, it will in effect change the character of the Parkhill tract from drift coal to pump coal and its value will be no greater per acre than the Hogsett and Wilson tract.

The amount of the owelty in favor of the Parkhill tract ought in that case to be very much more than the amount as found by the Master.

But the contention is erroneous :

First. Because it would violate both the rules laid down in Dan. Chan. Pract. [*Supra.*]

Second. Because it would take away the rights of the appellees vested in them by the Pennsylvania Statute.